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Address

THE COMMERCIAL DOMINATION OF THERAPEUTICS AND THE MOVEMENT FOR REFORM.*

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CHICAGO.

PROPRIETARY MEDICINE A RECENT DEVELOPMENT.

The proprietary medicine business as we know it is a development of only a little over a generation. In 1875, Lawrence, of *Medical Brief* fame (?), and his junta of nostrum makers, whose output and that of their offshoots alone have run into the hundreds, were unknown. Thirty years ago the so-called German synthetic chemicals were unheard of as medicines; now, if we include the true and the false, there are thousands of them. Including the typical nostrums, the more or less legitimate proprietary mixtures and the synthetic compounds, the number of proprietary medicines has become so vast that no one is rash enough to attempt to estimate it. A few of these, we may admit, have a distinct value; they represent original work and are worthy of recognition as remedial agents. The vast majority, however, are but the simplest of mixtures or are well-known drugs put out under fanciful names, with no advantage whatever; or are absolute frauds and swindles. Some of these remedies are made by manufacturing pharmaceutical and chemical houses of greater or less repute; the majority by men —or "companies"—who know nothing about medicine, pharmacy or chemistry, and who have gone into the business as they might have gone into any other get-rich-quick enterprise.

This business has been growing more rapidly than ever during recent years, and the statement made here in Baltimore last December that the use of this class of preparations has doubled during the last decade is probably true. But worse than the increase in number is the development in the advertising literature of unblushing falsehood and palpable deception. Conditions in this regard had become so disgraceful—I put this in the past tense because there has been a change since the Council began its work—that there seemed to be no statement too silly, no claim too extravagant, and no falsehood too brazen for use by those who wrote the advertising literature that physicians were asked to read and to believe. It was, therefore, not only the character of the preparations, but the methods of exploitation that had become unbearable and a disgrace to the profession that tolerated it. In brief, this business, the annual profits of which run into the millions, has grown until the use of proprietary medicines by many physicians has almost displaced the use of the individual official drug. It has checked advance in scientific methods of treatment, inhibited intelligent clinical observation and developed an optimism that is unwarranted by facts—an optimism that is more fatal than the most radical therapeutic nihilism. But above and worse than all, this commercialized materia medica has blighted our literature by debauching our medical journals and even by tainting our text-books.

And whose is the fault? That the business has developed in this country to such extent, with scarcely a protest on the part of our profession, is a reflection on the common sense and intelligence of the physicians of the United States. We, as well as manufacturers, are at fault. We must assume the blame for becoming such easy dupes to their enterprise and sagacity.

But a change is taking place; a halt has been called, and our profession is awakening to the disgrace of it all. It is about the movement for ridding our profession of this disgrace that I want to speak to-night.

NO PROTECTION IN THE PAST.

We have long suffered from a want of governmental or other supervision over the manufacture of medicines. In no other country has the standard and quality of drugs been left entirely to the manufacturer's honor. From time to time the medical profession has made spasmodic, but weak, efforts to remedy the condition: we find records of this even as early as the beginning of the nineteenth century.

The agitation of those early days resulted in the adoption of a Pharmacopœia, the first issue of which was published in 1820. This standard, by the way, was the work of physicians and was gotten out by them for the guidance of pharmacists, who, however, had nothing to do with its preparation. It is to be regretted that conditions have changed, and that, while the physicians then were the ones interested, for the last fifty years they have left it practically to the pharmacists. While the Pharmacopœia furnishes standards which were accepted by a few as authoritative, it was, after all, but an advisory instrument, and was followed or ignored as suited the manufacturer.

The Pharmacopœia only partially improved matters, and society transactions continued to contain records of criticisms of the prevailing conditions. So it went on until the organization of the American Medical Association. At its first meeting resolutions were adopted indicating that the question was still a vital one. So, again, in 1849, 1850 and every year or two thereafter this subject was discussed. Then, however, the unreliability of drugs was the source of irritation, the proprietary medicine abuse not yet being so much in evidence. In 1879 we first find the Association recognizing that incipient evil which has since developed into the modern curse—proprietary medicines. In the Transactions for that year we find the following:

*The Annual Oration before the Medical and Chirurgical Faculty of Maryland, April 24, 1907.

WHEREAS, Of late years many drugs and combinations of drugs bearing copyright names have been placed on the market and especially introduced to the notice of physicians, and

WHEREAS, Such drugs and combinations of drugs, having copyrighted names, are advocated in the medical journals of the country, be it

Resolved, That the use of articles thus protected by copyright and the promoting of their use by advertising them in medical journals is a distinct violation of Section 4, Article 1, of that portion of the Code of Ethics treating on the duties of physicians to each other and to the profession at large, and also of Section 4, Article 1, of that portion of the Code of Ethics treating on the duties of the profession to the public and of the obligations of the public to the profession. (Transactions, vol. xxx, 1879, p. 45.)

From this time on scarcely a year passed that the Association did not take action regarding the proprietary-medicine problem, and finally when THE JOURNAL took the place of the annual Transactions it became, on account of the advertisements, a very practical question. It is worth recording here that there was a time when our profession opposed proprietaryship in medicines, recently, however, this seems to be accepted as a necessary evil.

IMPOSSIBLE TO DEFINE AN "ETHICAL" PROPRIETARY.

It is unnecessary to give in detail the difficulties connected with this question, or to explain how absolutely impossible it has been to decide what is and what is not an ethical[1] proprietary preparation. It certainly has been a trying question for those editors who have honestly striven to have their advertising pages clean and free from fraud. But long ago it was realized that the problem is one that the physician can not solve by himself. A physician is not supposed to be an authority on pharmacy and chemistry; he is expected to know the physiologic and therapeutic actions of drugs, but not the details of their chemical action or the intricacies of their compounding. This requires a special training and a technical knowledge entirely different from that required for prescribing for the sick.

The pharmaceutical profession bears the same relation to the medical profession that the ordnance department does to the army in the field. The fighting force is not expected to know how to make a rifle, or to have a practical understanding of the manufacture of powder and shot. The men on the firing line know how to use, but not how to make the ammunition. But nevertheless the efficiency of the men at the front is largely dependent on the integrity and honesty of the supplies of the ordnance department.

The trouble has been that the sister professions of medicine and pharmacy have not been cooperating; rather they have been drifting apart.

It was in recognition of this principle that, in 1900, there was published in THE JOURNAL a series of articles, written by a pharmacist well qualified for the purpose, on "The Relation of Pharmacy to the Medical Profession." Their object was to enlighten the profession regarding the conditions with the purpose of leading up to the suggestion of a remedy. As may be remembered, the remedy suggested was the creation of a body of pharmacists, chemists and pharmacologists who should act for the profession and examine the products on the market, or at least take up the subject from a practical standpoint. These articles appeared just before the first Atlantic City session, and some of us had a vague idea of proposing such a board to the general meeting, but the psychologic moment did not seem to have arrived and the matter, for the time being, was dropped.

And so time went on, the subject receiving more or less attention in the Section on Pharmacology and Therapeutics at each annual session, till at the Atlantic city session, in 1904, the delegates from Michigan presented to the House of Delegates a preamble and resolutions that had been adopted by their state society, which read as follows:

WHEREAS, An exact knowledge of the composition and properties of substances used in the management of disease is essential to a physician's best success:

WHEREAS, Commercial push, by advertisement and drummers, persuades many physicians (often the very elect), to use and commend drugs, mineral waters, artificial foods, etc., etc., of unknown composition and effects:

WHEREAS, As it is impossible for the individual physician to verify the statements of sales agents, to separate fact from fancy, he often uses substances quite unlike those indicated, to the discredit of himself and his art:

WHEREAS, The American Medical Association was organized to promote the exact knowledge and intelligent practice of its members:

Resolved, That the Board of Trustees, American Medical Association, is hereby requested to provide for the analysis of medicinal substances of unknown composition and undetermined effects, and to publish promptly the results in the Association JOURNAL:

Resolved, That the Board of Trustees be requested to appoint a "JOURNAL Clearing House Commission," three in number, to serve without salary, with authority to have analyses made in reliable laboratories, by experts of recognized ability, or to equip a suitable laboratory and employ one or more competent experts, at a yearly expense not to exceed five thousand dollars.

THE COUNCIL CREATED.

While these resolutions were not finally acted on, some of us realized that the time had at last arrived for something to be done, and for materializing the idea of a board of control. During the next eight months the general plan was discussed with many physicians and with such chemists and pharmacists as Professors Long, Stieglitz, Puckner, Hallberg and others of Chicago, Professor Cushny of Ann Arbor (now of London), Professor Abel of Johns Hopkins, Dr. Wiley and some of his staff at Washington, Professor Remington, Professor Sadtler, Mr. Wilbert of Philadelphia, Dr. Sollmann of Cleveland, and others. Several meetings were held, at which a few gathered and the general plan and scope of the work was outlined and discussed in all its phases. The matter was presented in detail to the Board of Trustees at its meeting in February, 1905. After discussing the matter fully the trustees authorized the creation of the board, and specified that it be known as the Council on Pharmacy and Chemistry.

Thus it is that the profession now has at its service a group of men who, for this work, possess special training and technical knowledge. Their energies are devoted to the thankless task of winnowing from the chaff of dishonesty the occasional grain of honesty.

The first meeting of the Council was held in Pittsburg, Feb. 11, 1905. This meeting was an interesting one. To me it was not only interesting, but profitable, for my eyes were opened to conditions the very existence of which I had not before realized. Among those present were practical pharmacists, practical chemists, well-trained pharmacologists and physicians. Each group saw things from its own viewpoint, compared notes and exchanged views. As I say, the result was interesting and the revelations both instructive and—humiliating.

The work to be accomplished at this meeting was to lay down certain fundamental principles that should govern the Council in its labors, to devise methods of procedure, etc. The most serious and important phase of the work was the adoption of the rules or principles which should govern the Council in deciding whether or not a preparation should be accepted.

The first thing an intelligent physician does when he is called to treat a patient is to make a diagnosis of the disease, learn its cause, and remove it if possible. On this principle the Council attacked the problem.

1. I am well aware that we should not apply the word "ethical" to an inanimate object. I use it because it seems to be necessary.

RULE 4.—INDIRECT ADVERTISING TO THE PUBLIC.

It was recognized at the outset that the first objection to proprietary medicines is that the prescribing of such preparations is apt to lead to self-medication by the public and the manifest evils which this entails. The fact that physicians themselves are responsible for at least some of the "patent medicine" business is well known to every pharmacist and to every physician who has given the matter thought. A physician writes a prescription for a proprietary preparation that has a catchy, easily remembered name, and thinks that the matter ends there, but the manufacturer knows better; the patient gets the medicine, and with it all kinds of information regarding its virtues. The physician may instruct that the label, circulars, etc., be removed, but in many cases this is not done, and usually no such instruction is given. The patient learns from the printed matter that that particular medicine is good not only for the disease for which the doctor prescribed it, but for every other real or imaginary ailment with which he may be afflicted. In this way there has been introduced to the public a host of "patent medicines" without a cent of cost for advertising, except that to physicians.

The full directions for use which accompany these medicines are, in part at least, responsible for counter-prescribing by druggists. There is a peculiar fascination—at least to the average pharmaceutical tyro—in posing as a prescriber, exemplifying the old saying: "A little knowledge is a dangerous thing." The "proprietary" nostrum vendors give him the "little knowledge," sufficient, that is, to sell their preparations. He soon becomes familiar with the reading matter and he is impressed, or pretends to be, with the wonderful properties of the preparation as described in the circulars. He adds his recommendation to those of the doctors whose testimonials he shows to the customers on the other side of the counter.

This indirect advertising to the public was the first evil to be overcome, and the first principle adopted by the Council is incorporated in what is now known as Rule 4. It is as follows:

No article will be admitted whose label, package or circular accompanying the package contains the names of diseases in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to literature distributed solely to physicians, to advertising in medical journals, or to vaccines and antitoxins.)

It is this rule that has met with opposition from those who are not satisfied with the doctors' patronage, but want that of the public also. It is this rule that is of most importance to the physician, for its enforcement will check one of the worst evils connected with the proprietary medicine business—that which makes the doctor an advertising medium to the public.

Certain manufacturers oppose it because, they say, the doctor needs the information and the instruction that is given on the labels and in the circulars. The reply is that it is not necessary for the doctor to go to the drug store to learn what a remedy is good for, even though he is one of those who depend on the manufacturer for his knowledge. If a doctor dispenses his own medicine and has to depend on the manufacturer for information regarding its use, let that information be given in the literature not attached to the package.

Medicines manufactured solely for physicians' use, such as the official preparations and those of the National Formulary, are not accompanied with circulars or advertising matter and there is no valid reason why proprietary medicines should be. If the manufacturer wants to enlighten the doctor regarding the value of his preparation, let him advertise in the medical journals; let him send the circulars, or his detail man, to the doctor direct; in any event, there are many ways of letting the doctor know in what diseases the medicine is indicated without putting it on the bottle. It will be noticed that Rule 4 permits therapeutic properties and doses to be given in the literature accompanying the package. Many believe, and with good reason, I think, that the Council has been too liberal in this, that no such information is necessary in that connection.

It has become a recognized fact in the "patent-medicine" field that the easiest and cheapest way of reaching the public is by advertising through the doctor. Let me quote a paragraph that appeared in *Printers' Ink*, an advertising journal, some two or three years ago. The words are those of a "patent medicine" man and, of course, were not directed to physicians.

But the patent medicine of the future is the one that will be advertised only to doctors. Some of the most profitable remedies of the present time are of this class. They are called proprietary remedies. The general public never hears of them through the daily press. All their publicity is secured through the medical press, by means of the manufacturer's literature, sometimes gotten out in the shape of a medical journal, and through samples to doctors. For one physician capable of prescribing the precise medicinal agents needed by each individual patient there are at least five who prescribe these proprietaries. They are the chief standby of the country practitioner. . . . Three-fourths of all the prescriptions received are for these proprietary remedies, and the pharmacist simply opens the package and writes a label, "A teaspoonful three times a day before meals." . . . The original bottle is given to the patient. He sees that the remedy does him good, and when he feels a trifle run down again he goes to a drug store and buys another bottle, not troubling the doctor. He meets a friend on the street who is not looking well. "I know exactly how you feel," he says. "Now, just go and buy a bottle of ———. Best thing in the world. My doctor prescribed it for me, so it isn't a 'patent medicine.'" In this way the name of the remedies advertised only to physicians get abroad to the general public. . . . The proprietary medicine of the future, though, will be advertised through these channels. The medical papers will reap the harvest, and the physician himself, always so loud in the denunciation of "patent medicines," will be the most important medium of advertising at the command of the proprietary manufacturer. In fact, he is that to-day.

Have you ever seen an arraignment of this evil by its enemies which equals this cynical statement of its friends?

Is it necessary to say more on this point? In fact, can anything more be said? What I have just quoted should be read by every nostrum-prescribing doctor in the country, and, having read it, he should go to some quiet corner and kneel down and pray the Lord to give him a little common sense.

Now, while I am quoting, let me quote something else. This is from a book written by Mr. George P. Rowell, entitled "Forty Years an Advertising Agent." Mr. Rowell, as some of you may know, dabbled somewhat in the "patent medicine" business himself. He is the one who created Ripans Tabules. In this book, by the way, he tells how he came to put this preparation on the market. In the chapter from which I shall quote he described the "patent medicine" business in an interesting way, and tells of the fortunes that have been made and also lost. He has this to say about an "ethical" proprietary that some of you may have heard about:

We had a successful advertiser in Halifax, N. S., who sold a medicine known as Fellows' Hypophosphites, that proved so

good that some shrewd business men in the medicine trade, who knew about it, bought the trade-mark, incorporated a company with a capital of $100,000, retained the original owner as manager, stopped all advertising except in medical journals, and thereafter pushed the sale only through the medical profession. I had information at one time of a young man who was heir to an uncle, recently deceased, and had come into possession of a certificate of stock of this company, of the face value of $6,000, and made up his mind that, shrewd as the old gentleman was, he had, without doubt, acquired trash in this instance; and I heard further, that the young man began to think better of the doubtful asset, when one day a dividend check came; and when, at the end of the year, he realized that within the twelvemonth that $6,000 certificate had brought him $9,000 in dividends, he began to revise his estimate of his deceased uncle's prescience in making investments.

As a "patent medicine" it was not a success, but as an "ethical proprietary" it has been proving a gold mine. So, since that time this medicine has not been advertised except to doctors through medical journals, has it? Look at the wrapper around the bottle, read the label on the bottle, notice the name blown into the bottle, and then will you doubt the statement of the average druggist when he says that nine-tenths of Fellows' Hypophosphites is sold over the counter direct to the public and that the doctors are responsible? What better method of advertising? And how easy! Newspaper advertising is expensive! It is cheaper to use the doctor.

The principle incorporated in Rule 4 is one of the most important principles adopted by the Council. It threw out at once three-fourths of the proprietary medicines on the market. For is it to be supposed that the promoters of Fellows' Hypophosphites, Gray's Glycerine Tonic, Glycothymoline, Antikamnia, Antiphlogistine, Phenalgin, Santal Midy, and most of the self-styled "ethical" proprietaries would conform to Rule 4? From their standpoint the proposal is absurd.

RULE 1.—NON-SECRECY.

Everybody, that is, *nearly* everybody, agrees that a physician should know what he prescribes. Some intimate that he has no moral right to give a medicine unless he knows what he is giving. A few emphatically express the view that it should be made a criminal offense for a physician to give a patient a medicine when he does not know exactly what it contains. I must acknowledge that I am much tempted to side with the latter. In any event, after agreeing on Rule 4, the Council again went back to general principles, and adopted the following, which is known as Rule 1:

> No article shall be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article be furnished for publication. The general composition of the vehicle, its alcoholic percentage, if any, and the identity of other preservatives, if present, must be furnished.

There was little discussion when this rule was under consideration. Even the verbiage was soon agreed to. It is so palpably consistent, so absolutely fair and just that one would have imagined that it would receive universal approval. But do you remember the protests of certain medical journals when the first announcement was made and these rules published? It was simply outrageous, we were told, that enterprising firms which had spent money and time in getting up a fine combination should be asked to state what the combination contained. One New York medical journal even went so far as to send a circular letter to the manufacturers offering them space in its columns for an expression of their views in regard to the outrageous attempt that was about to be made to injure their business. Certainly, this attack on vested interests was scandalous, and it was a good thing that the proprietary people were so well guarded by a journal that is published in the interests of physicians.

But the proprietary gentlemen were too wise: they did not accept the offer, since nothing appeared from them. In fact, the majority of the nostrum men have said that they always have been, still are, and always will be willing to tell physicians what their preparations contain. They agree that physicians should know what they are prescribing, that it is very necessary they should know. It would be wrong, indeed, if physicians should prescribe without knowing what they are prescribing, say these gentlemen. Surely! And the more quackish the preparation and the "company" that exploits it, the more willing they are to give a formula. Mind you, I say "a" formula.

When some twelve years ago the Board of Trustees ordered that no proprietary should be advertised in THE JOURNAL, unless the advertisement was accompanied with a formula sufficiently often to let the reader know of what the preparation consisted, they imagined that they had done away with the evil—secrecy. And this has been the cry since—publish the formula and the preparation becomes ethical. It did not seem to dawn on those who were especially interested in this subject that connected with the exploitation of the proprietaries were most extravagant claims as to their therapeutic value, and that those who would make misstatements regarding the therapeutic action of their preparations would not hesitate to stretch the truth when they made statements as to the composition. The formula was the thing. If the formula was forthcoming, the preparation was ethical. But it has developed that the more fakish the nostrum the more willingly was the formula furnished. So it is not strange that there were admitted to the advertising pages of THE JOURNAL such fakes as Ammonol, Phenalgin, Labordine, Campho-Phenique, Salacetin, Hagee's Cordial of Cod Liver Oil Compound and Tyree's Antiseptic Powder.

The idea that the publication of a formula will make a preparation ethical has been harped on and emphasized until many believe it. Now the fact is most of the proprietary mixtures are simple combinations of well-known drugs that any pharmacist, or even an average physician, could compound if the active ingredients were known. Therefore, would not the makers of such preparations be very foolish to give the correct formula even as to the active ingredients? Surely they would be, and the average nostrum maker is not a fool.

I presume it is unnecessary to say that the Council is not satisfied with "a" formula, but demands "the" formula.

RULE 6.—EXTRAVAGANT THERAPEUTIC CLAIMS.

The man who has something to sell naturally wants to impress the prospective buyer with all its good qualities. This is business—honorable business. Incidentally, in the business world it is expected that the seller, while emphasizing all the good qualities, will tell the truth. An exception to this rule may be made to the horse-trader. He, proverbially at least, is expected to overstep the bounds of truth in his comments on the quality of his animal. But the other gentleman knows this and discounts his statements accordingly. He examines the animal, or if he thinks himself deficient in the necessary

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knowledge to pass judgment on the value of a piece of horse flesh he gets the advice of a friend who has this knowledge.

I admit it is rather far-fetched to compare horse-trading with a proprietary medicine business, but there does seem to be a similarity—and also a difference. The seller in both instances is given to a slight exaggeration as to what the respective articles will do in their respective spheres of action, but in one case the buyer, at least as a rule, takes it for granted that the seller is likely to stretch the truth. At least, he is healthily skeptical about the matter and does not believe all that the horse-trader says. In the other case the buyer, to borrow a simile from another department of life's activities, is quite likely to swallow not only the bait, but the tackle also. Perhaps he is not so much to blame after all. It is a little difficult for honest physicians to realize that others traffic in human life.

The claims in the advertisements of "patent medicines" are so absurdly extravagant that a "patent medicine" advertisement has become synonymous with mendacity. In too many instances this also applies to advertisements of so-called "ethical proprietaries." There is no limit to the license allowed those who write the advertising matter that is to influence physicians to use the products advertised.

To repeat again, there seems to be something connected with the "patent" and proprietary medicine business that demoralizes. An honest, conservative statement about the merits of a proprietary preparation is as rare as are sweet violets in Iceland. As regards the large majority this is not to be wondered at. To tell the truth about either their composition or their therapeutic value would be to stop their sale. But there are proprietary medicines that have merit and that would be used even if the simple, unvarnished truth were told about them, but the habit of exaggeration crops out in the advertising of even these.

This was one of the evils recognized and so Rule 6 was adopted, which says:

No article will be admitted or retained of which the manufacturer or his agents make unwarranted, exaggerated or misleading statements as to therapeutic value.

Of course, the principle underlying this rule is so elemental that one might think that it would meet with no opposition when put into practical application. Yet its actual enforcement has caused much trouble in spite of the fact that there has been a liberal interpretation of the literature. The diversity of opinion and varied experience in the use of therapeutic agents has been recognized and the Council has admitted every reasonable claim, everything short of absolute misstatement and palpably false pretension.

OTHER RULES.

The three rules above considered meet the most objectionable features of proprietaryship in medicine. Indirect advertising to the public through the physician, secrecy in composition and false therapeutic claims. The enforcement of these three rules would do away with the main evils connected with the proprietary business, and incidentally would wipe out a goodly number of the products. The other seven rules, while important, some of them being necessary for the enforcement of the three already referred to, need but a brief reference here.

Rule 2 is:

No chemical compound will be admitted unless sufficient information be furnished regarding tests for identity, purity and strength, the rational formula or the structural formula, if known.

There are many preparations on the market, both domestic and imported, that are claimed to be definite chemical compounds, but which are not. This rule guards against such, as well as against adulteration, etc. No objection has been made to this rule.

Rule 3 says:

No article that is advertised to the public will be admitted; but this rule will not apply to disinfectants and food preparations, except when advertised in an objectionable manner.

This rule, of course, refers to open, direct advertising to the public, in the public press, etc. It is not necessary to defend this rule, before physicians at least. It provides for conditions entirely different from that covered in Rule 4.

Rule 5 is:

No article will be admitted or retained concerning which the manufacturer, or his agents, make false or misleading statements as to geographical source, raw material from which made, or method of collection or preparation.

The proviso in this rule is incorporated in the national Food and Drugs Act and needs no comment.

Rule 7 says:

Labels on articles containing "poisonous" or "potent" substances must show the amount of each of such ingredients in a given quantity of the product. A list of such substances will be prepared.

This rule is not really necessary since the passage of the national Food and Drugs Act covers many of the substances referred to.

Rule 8 is as follows:

If the trade name of an article is not sufficiently descriptive of its chemical composition or pharmaceutical character, or is, for any other reason, objectionable, the Council reserves the right to include with the trade name a descriptive title in the book. Articles bearing objectionably suggestive names will be refused consideration.

The last sentence was not in the original draft; experience showed the necessity of such a rule. I doubt if any one will think this an unwise precaution when we run across such names as: Gonosan, Gonorin, Gonoral, and Gonol, names certainly suggestive enough even to the most ignorant layman, and remembered without difficulty by those who wanted to tell their fellow-sufferers what they were taking. Genitone, Vaginol, Oöphorin, Virilin, Rheumasan, Bronchitin, Pneumin, etc., are others. I am not quoting fanciful names from the "patent medicine" list; they are all advertised to physicians as scientific preparations.

Rules 9 and 10 merely require information regarding the copyrighted name and, if the article is patented, the number and date of the patent. They are as follows:

Rule 9:

If the name of an article is registered, or the label copyrighted, the date of registration and a copy of the protected label should be furnished the Council. In case of registration in foreign countries, the name under which the article is registered should be supplied.

Rule 10 states:

If the article is patented—either process or product—the number and date of such patent or patents should be furnished.

These rules were adopted in a tentative way at the Pittsburg meeting. In the following September the Council met at Cleveland and to that meeting were invited representatives of the various branches of manufacturing and importing interests for consultation and suggestion. The various rules were discussed and only slight modifications were made. The only rule that was objected to by the manufacturers' representatives was

Rule 4, but all who took part in the discussion acknowledged that the principle underlying the rule was a just one and would work no hardship on those manufacturers who were catering to physicians only.

At the Pittsburg meeting it was decided that when it was necessary for the manufacturer to change the labels, circulars, and other advertising matter, he should be given ample time in which to comply so that he might not experience undue expense or hardship in meeting the requirement. At the Cleveland meeting this time was extended definitely until July, 1906. Thus, previous to July, 1906, the Council accepted preparations even though the labels, literature, etc., might not have been in accord with the rules, on the promise of the manufacturer to make the necessary modifications in a reasonable time. However, since July 1, 1906, the literature, labels, etc., must be correct before the preparation is accepted.

I have discussed these rules at length that you may know what they are and what they mean. Together they give, what has never been given before, a definition of the term, "an 'ethical' proprietary medicine." Is it satisfactory? Together they make the standard by which the Council judges proprietary medicines. Is the standard too high?

PROCEDURE.

As the members of the Council are scattered, meetings, except at rare intervals, are impracticable. The method of procedure, however, is simple, communication between the members being through a bulletin prepared and sent to each member by the secretary every Thursday. In this bulletin are arranged systematically the reports, motions, comments, discussions, etc., the matter being indexed so that ready reference to all past work is at hand for each member.

The Council is divided into three definite divisions—chemistry, pharmacy and pharmacology. Articles are assigned to a subcommittee usually consisting of but one member for preliminary report. This subcommittee consults with other members, with outsiders, and, if thought advisable, makes or has made chemical analyses or physiologic examinations. If the subcommittee desires to communicate with the manufacturer, the correspondence is conducted through the secretary of the Council, the identity of the subcommittee not being divulged.

When ready the report is placed in the Bulletin, together with such correspondence or other matter that the subcommittee may think necessary for the guidance of the members in arriving at a conclusion. The report may be preliminary or final. If preliminary, suggestions and advice are asked. If final, the article is recommended for either Class A, B, C or D, and reasons given for the recommendation. When the final report is made, it is before the whole Council for action. If the article is put in Class A, it means acceptance; if in Class B, more definite information regarding the composition is wanted; if in Class C, certain modifications in the literature are required, and, if in Class D, it means refusal of recognition.

The assignment of an article to Class A or Class D is not necessarily final. If an article which has been voted to Class A is later found to conflict with the rules, the action of the Council may be reconsidered. Similarly, an article voted to Class D may again be taken up and finally accepted if it is found that it has been made to conform with the rules.

Many manufacturers, believing that the publication of certain information in regard to their products would detract from their value, have often volunteered to furnish information for the private use of the Council. The Council, however, does not receive trade secrets, but insists that all information it receives may be published at its discretion. The Council desires information for the profession, and not for itself alone.

CHEMICAL EXAMINATION NOT ALWAYS MADE.

It is needless to say that the Council does not make chemical examinations of every remedy. Such a task is manifestly impossible. If the authors of text-books on physiology, on anatomy or on practice, were to verify every statement they made, such works could not be completed in a lifetime. Instead, the authors, by virtue of their general knowledge of the subjects on which they write, select the truths as they see them. These, finally presented in the form of a text-book, are again accepted as truths by students, because they believe that the author was competent to select from the mass of literature at his command those statements which were most probably true. In the same way the Council has attempted to prove or disprove statements which seemed questionable, while it has accepted those which, from its general knowledge, were believed to be true. In this matter it is needless to say that the Council has been inclined to accept statements made by firms or persons known to be reliable and responsible, while it has been inclined to examine more closely the statements made by irresponsible parties, or by those who seemed to be inclined to exaggerate.

FORMULA NOT ALWAYS RELIABLE—EXAMPLE.

At first it was supposed that the statements of all the legitimate manufacturing firms could be taken without question. This supposition, however, was not well founded, and it is here that some of us have been sadly disappointed. We supposed that it was only the pseudo-chemical concerns, those which are not in the legitimate manufacturing pharmaceutical business, who were the offenders, but in this we were mistaken. Even the regular manufacturing concerns have among their specialties preparations that are as fraudulent as are any put out by the typical nostrum vendors. One old-established house for years has had on the market a surgical dusting powder, which it advertised as a definite synthetic chemical compound, the result of great scientific research. The published formula was worded to mystify, and extravagant claims were made for the product. Our chemists showed that this wonderful preparation was a mixture containing approximately 70 per cent. of boric acid, 20 per cent. of acetanilid, with a little thymol, bismuth, cinchonin and salol. This is by no means an isolated case, but fortunately for one's faith in business integrity there are at least some firms that to physicians as scientific preparations.

COUNCIL DOES NOT RECOMMEND USE OF ARTICLES ACCEPTED.

The acceptance of an article does not mean that the Council recommends it; this is emphasized by printing the following disclaimer with every publication of accepted articles:

> The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation, but that so far as known it complies with the rules adopted by the Council.

At the inception of the work, it was decided to adopt an extremely liberal policy and to accept a preparation

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that met the requirements, even though it might not be considered of any great therapeutic value, or as representing anything new or important from a chemical or pharmaceutical point of view. Later, when the Council obtains the fuller cooperation of the profession, a higher standard may be adopted for acceptance. In sifting the wheat from the chaff it is sometimes advisable to have a coarse enough sieve to let a little chaff go through, but later on it may be desired to have the pure wheat without any chaff; then the sieve must have a finer screen.

It is presumed that physicians will think for themselves and use their own judgment regarding the therapeutic value of the preparations accepted.

THE BOOK—NEW AND NON-OFFICIAL REMEDIES.

We have been speaking of "accepting" or "approving" preparations. Accepting for what? Approving for what? Not for the advertising pages of THE JOURNAL, as some have seemed to imagine. It would be absurd to go to the trouble and expense for such a purpose. In a sense, the Council is compiling a book, and acceptance of an article means that it is accepted for inclusion in this book. It will be known as "New and Non-Official Remedies," and will represent the actual tangible evidence, or result, of the Council's work. It will contain a description of those proprietaries which have been approved, together with such non-proprietary drugs as have come into more general use and are not as yet in the Pharmacopeia. Is it necessary to present arguments to prove that such a book is needed? Heretofore there has been no book, in this country at least, that a physician could turn to for information regarding non-official preparations. Every day a physician in active practice who reads sees mentioned in his journals medicinal preparations about which he knows nothing. But he wants to know. Where shall he look? They are not mentioned in the Pharmacopeia, in the National Formulary nor in but few, if in any, of the standard textbooks on materia medica. Heretofore he has had only one satisfactory source of information, if it is a proprietary—the manufacturer. And the information he will receive from him will most likely be voluminous, but too partial for unquestioning acceptance. Why not make it unnecessary for such an inquirer to depend entirely on biased information?

This book will tell him what the preparation is, what is claimed for it, the dose, where it can be obtained, and whether patented or trademarked. It will give him the most favorable information consistent with truth, quoting even the claims of the manufacturer, if they are not too optimistic. But it will tell him what will not be found in the literature sent him by the manufacturer—it will inform him if it is liable to have untoward effects, etc. It will, in short, supply him with information that is uninfluenced by commercialism.

It will be supplementary to the Pharmacopeia, and will contain preparations that later will become official, as, for instance, the various patented products which, because they are proprietaries, are not usually admissible to the Pharmacopeia. The last revision of the Pharmacopeia contained preparations that, while in general use by physicians at the time, did not appear in the former edition. In 1893, for instance, phenacetin was in general use, but it did not appear in the Pharmacopeia issued in that year. If this preparation, which is now official as acetphenetidin, is a good thing to-day, it was then. There are a number of such preparations already accepted that will probably be in the next Pharmacopeia,

BOOK NOT LIMITED TO PROPRIETARY ARTICLES.

At the beginning it was intended to include in the book only proprietary articles, but time and experience have shown the need of including more than these. New drugs are continually being added to our therapeutic armamentarium that are not in the Pharmacopeia. For instance, a little while ago phenolphthalein, long in use in laboratories, etc., as an indicator, was discovered to have purgative effects, and clinical use seems to demonstrate that it may have certain advantages over other aperients. In fact, it is already on the market under various proprietary names, as purgen, purgen konfect, purgatol, purgotin, laxirconfect, laxine, el zernae, etc. The Council has decided to include this in the book. Thus physicians will be able to learn what phenolphthalein is at the outset and will not be deceived for years into using it under various fanciful names and at many times its cost. But, above all, they will not be misled by the extravagant claims of commercial interests.

Hexamethylene tetramine had been known before its value as a urinary antiseptic was discovered; then it was put on the market under various trademarked names. At the present time the Council would undoubtedly accept this for the book, with a description, and we would not be bothered with a dozen or more different names for the same article. Incidentally, I hoped a less cumbersome name would have been given the preparation than was adopted by the Committee of Revision of the Pharmacopeia. Four trade names for hexamethylenamin already have been accepted, but this is done not to encourage many names for the same thing, but to furnish information. Thus a reference to the book will disclose that Urotropin, Formin, Methaform and Uritone are different manufacturers' names for hexamethylenamin.

The permanent addition to our materia medica of really meritorious articles has been slow, extremely slow; but the elimination of those without merit has been still slower. And, what is of more importance, this elimination has been achieved at the loss not only of money, but possibly even of human lives. The indiscriminate and unscientific drug experimentation that has been carried on by physicians at the behest of commercial interests and without any knowledge except that furnished by such interests is not creditable. It is hoped that this book will check this, to some extent at least.

BOOK WILL BE AN ANNUAL.

The idea is that this book will be issued as an annual, each revision to include the addition of new drugs and proprietary articles that are deemed worthy of admission; those that for good and sufficient reasons should be omitted will be left out. The descriptive matter will also be modified as may be found necessary from the developments of the year. Manufacturers are slow to call attention to untoward results. It will be the function of the revisers of this annual to incorporate both the favorable and the unfavorable.

Personally, as one who has had experience in general practice, I know that it will be of immense value. Heretofore there has been no way for the conscientious practitioner, the medical writer or the editor to differentiate the true from the false. For these the book, "New and Non-Official Remedies," will furnish a reliable guide.

While I have spoken of this book as of the future, the fact is the first or preliminary edition was issued some six or eight weeks ago. This, however, is simply

a reprint of the articles as they appeared in THE JOURNAL and is issued for two purposes: To invite criticisms and suggestions, and, what is more important, to furnish even now a book of reference for those who want to support the Council in this movement by using only such preparations as have been approved. Another similar edition will be issued shortly, slightly modified, with an index and more information than appears in the first reprint; and, of course, it will include the articles that have been accepted since the first edition was printed. It is probable that two or three editions of this preliminary report may be issued before the official book is published.

CAN NOT PUBLISH BLACKLIST.

It has been suggested that the Council print a list of the preparations that have been refused recognition, since there are many who have intimated that they would not prescribe or recognize in any way the rejected articles. This is impracticable: First, because the number is too large; second, because the Council hopes that some may reform or be withdrawn without necessitating a resort to extreme measures, and, third, because it might and undoubtedly would involve us in lawsuits. A blacklist is not a safe thing to make public.

The Council is publishing from time to time reports condemnatory of preparations, with comments, but this has to be done with great caution; every statement must be verified or injustice might be done. Further, the function of the Council is to approve rather than to condemn. When it does condemn and publishes its condemnation, it is for a specific purpose, that purpose being to educate physicians by presenting concrete examples of the way they are being imposed on.

CHEMICAL LABORATORY.

A chemical laboratory has been established in the Association building and is in charge of the secretary of the Council, Professor Puckner, and an assistant. While it is not possible to do a large amount of chemical work in this laboratory, it will be of great advantage in many ways.

In connection with the movement much information relating to the general subject has been gathered. This has been classified, indexed and made available for the future. This, in fact, is one of the important features of the work being done in the central office. In the past considerable matter has been published showing the fraudulent character of products manufactured not only in this country, but in Germany and abroad generally. Such matter has usually been published in drug or chemical journals and has never come to the attention of physicians—the very ones who should have been informed.

The important drug and chemical journals of the world are taken for the laboratory, and the information obtained from them is most valuable. It is needless to say that hereafter physicians will be informed of matters which concern them that appear in this class of journals.

In connection with the laboratory is an information bureau, in one division of which advertising literature has been collected and classified. This includes booklets, circulars, advertisements and write-ups in medical journals, etc., covering the last five years. The exhibit is interesting and instructive for those who want to make a study of this nostrum business, and will furnish texts for future sermons in the propaganda for common sense in therapeutics.

Another division directly related to the above is a card index of those who have given testimonials or furnished write-ups of proprietary preparations. These cards are made up in great part from the matter on file. This division also is most interesting. While it contains the names of a few excellent men, the great majority are hardly known in their own locality, and yet their opinions are accepted without question by intelligent, well-educated practitioners. Some seem to have a habit of giving testimonials for all kinds of things and it requires considerable space to record the references. It is encouraging to note that this exhibit is not growing so fast as it was. Evidently, testimonial giving is not so popular as it was previous to a year and a half or two years ago.

It is well known that while the *name* of a product does not change, the *composition* of the product may, and does. To be able to show this in the future, samples of many proprietaries are preserved, with date of receiving, etc.

COOPERATION OF OTHERS.

One favorable development is the cooperation of other workers in similar fields. A number of chemists in universities, schools of pharmacy, etc., have volunteered to assist, and it is expected that in the future the aid of such men will be of great advantage in solving questions on which they are especially well qualified to pass. Several state and municipal boards of health are doing good work, and exchange of information with these is now a feature. This promises to develop in the future to the mutual benefit of these boards and the Council. It is hoped, in time, to interest teachers in medical colleges; such help is sorely needed.

The advantage to the Council of having as members Dr. Wiley, chief of the Bureau of Chemistry, and Dr. Kebler, chief of the Drug Laboratory, has been very great, for it has received not only their personal aid, but also material assistance from the departments with which they are connected. In fact, without the aid of these laboratories some of the work done would have been impossible. The profession is also under great obligations to Surgeon-General Wyman, who permitted Dr. Reid Hunt to serve as a member of the Council. Through Dr. Hunt's connection with the Hygienic Laboratory of the Public Health and Marine-Hospital Service, and with the permission of Surgeon-General Wyman, it has been possible to refer certain intricate problems to that laboratory that otherwise would have been difficult of solution.

FOREIGN COOPERATION.

Another promising feature is the fact that the Council is getting in touch with workers abroad. For instance, splendid work is being done in Berlin, especially in the investigation of the synthetic chemical compounds under the auspices of the German Apothecary Society. This is directed by Professor Thoms of the Pharmaceutical Institute of the University of Berlin, a chemist of international standing. Correspondence with Professor Thoms has been carried on for some months, and he has offered to assist the Council whenever possible. At the request of the Council, the Board of Trustees of the American Medical Association has just elected him a corresponding member of the Council.

Professor Cushny of the University of London has been a corresponding member since he left this country soon after the Council was organized.

It is hoped very shortly to get similar foreign correspondents in Paris, Switzerland and in other countries.

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Such cooperation will be of great assistance in dealing with foreign products.

One of the conditions which the Council has had to meet is the exploitation of foreign goods by American agents who advertise them, sometimes innocently, under claims that are not accepted abroad. In some instances products had been sold abroad under claims regarding the composition that were shown to be false. Over there the manufacturers were compelled to modify their statements, but the old claims are still being made here. The Council has already secured a modification of the literature relating to certain foreign products by calling the American agents' attention to the fact that if such modifications were not made the actual facts regarding the preparation would be published.

A large number of preparations made here are advertised as being made abroad. Further, some are made abroad for the American market that have absolutely no sale in the country in which they are made. In due time evidences of these facts will probably be given to the profession.

I have given a brief review of the conditions which led to the organization of the Council, have outlined the principles or rules by which proprietary articles are judged, and have spoken of the mode of procedure. I have not told you of the difficulties the Council has encountered, and I think this hardly necessary, for I am sure all know without being told that these difficulties have been very great.

CONDITIONS ALREADY IMPROVED.

The work has been going on for a little over two years. To all appearances there are just as many nostrums on the market and the advertising pages of certain medical journals are just as well filled with this class of medicines—in fact, if the truth must be told, better, and for reasons that should be evident. But in spite of this apparent evidence of prosperity, if one looks beneath the surface, one will find that a change has taken place. There has been a gradual decrease in the number of write-ups of proprietaries; there is evidence that physicians are thinking, that they have developed a healthy skepticism and no longer believe all that is told them about the wonderful cure-alls they are asked to prescribe. The detail men do not have such willing and credulous listeners. There has been a remarkable falling off in the sale of "ethical" proprietaries, especially those of the typical nostrum type. This is common knowledge to those in touch with the trade. A comparison of the catalogues of some of the manufacturing houses in circulation two years ago with those of to-day will reveal the fact that not a few of the "specialties" are missing. And the descriptive matter, formulas, etc., of many others are different from what they were. A part of this is explained by the national Food and Drugs Act, but only a part. Many of the changes had taken place before this law was passed.

The influence of the Council in this connection has been greater than will ever be known. The knowledge that our profession is at last awake, that it has a body to expose the frauds that may be imposed on physicians has aroused some of the manufacturers at least to realize that old conditions have changed. The advertising literature is scrutinized more carefully; positive cures for incurable diseases are not so common.

"WHAT ARE YOU GOING TO DO ABOUT IT?"

This much has been accomplished; and yet what does it amount to compared with what must be done before American medicine is rid of the nostrum blight? The work has really just commenced. The exposés that have been made and the publication of facts regarding the nostrum business have made a large minority of the physicians think. But it is evident that much more must be done to arouse them to act. And this brings us to the question, "What is the profession going to do about it?"

The Council is purely an advisory body; there is no national, state, county, city or any other law that will compel the manufacturer to recognize it or to comply with its requirements. Hence, without the support of our profession its work will be of no permanent value. But this must be more than a passive support. Simply endorsing the work by words, by commendation or by that indefinable something called moral support, is well enough so far as it goes. But if definite, permanent, tangible results are to follow, the profession must act. If the profession does not act and does not back up this movement, rest assured we shall in time drop back into the old conditions, or into even worse.

HOW THE PHYSICIAN CAN HELP.

This movement was inaugurated directly for the benefit of the medical profession, and indirectly for the benefit of the public. There is no question as to the final success of the propaganda, but the work will be greatly facilitated if you who are interested will:

First.—If you use proprietaries, secure the list of approved preparations and, all things being equal, give those in the list preference in prescribing. This list, with a description of each article, costs but a few cents; without the description it may be had for the asking.[2]

Second.—Write to those whose preparations you are using and ask if the articles have been submitted to the Council; if submitted and refused recognition, why? and if not submitted, why not? Bear this in mind: The manufacturers will recognize the Council and ask to have their controlled products placed in the book if physicians insist that they desire this; otherwise, they will do neither.

Third.—Ask detail men who call if the preparations represented have been approved by the Council, and if not tell them that until this has been done you do not care to take time to examine the product.

Fourth.—Look over the advertising pages of the medical journals you are supporting—editors and publishers have great respect for the opinion of their subscribers—and write and ask for a square deal in the advertising, as well as in the reading pages.

Will it be out of place for me to suggest here that the members of the Council have a right to ask for your support, when they are working absolutely without pay? Is it presumed that they will keep on indefinitely and submit to jeers and sneers if those whose interests they serve do not themselves do their share?

I am sure that every intelligent physician, unless he has some interests on the other side, believes that the movement is a good one, and deserves all the support the profession can give it. I am also sure that every one of you believe this. But—what are you going to do about it?

Let me repeat: Moral support alone will not win this battle.

2. For prices, see advertising page 39, this issue.

It Will Pay.—The prolongation of life by the suppression of preventable disease is of much greater value to the state than the cost of the means employed.—G. W. Webster, M.D., in *Charities and the Commons.*

Original Articles

THE CURE OF UNILATERAL RENAL HEMATURIA BY INJECTION OF ADRENALIN THROUGH A URETER CATHETER.

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The following case of persistent hematuria from the left kidney of sixteen months' duration, which was cured by the injection of adrenalin in the renal pelvis through a ureter catheter, seems of sufficient interest to warrant publication.

It is interesting because of supposed traumatic origin, an injury having been received ten days before the hematuria began; because pain was constantly present in the side injured, but the hemorrhage came from the opposite side; because of the absence of any signs of nephritis which is held to be generally present in such cases, and because no previous publication of the use of adrenalin for such purpose has been found in the literature.

Patient.—R. H. D., single, aged 36, admitted Dec. 3, 1906, complaining of blood in urine.

History.—His family history was negative, as was also his past history. Patient had never had gonorrhea nor syphilis. No previous urinary trouble.

Present Illness.—In July, 1905, while working on a farm, the rack of a hay wagon fell over on the patient, and a large iron bolt struck him on the right side of the back "between the ribs and hip bone." He was stunned for a few minutes, but soon was able to return to his work, although there was considerable pain present in the region of the trauma. During the next week he had a good deal of pain in the right lumbar region, but he continued at his work. Ten days after the injury he noticed for the first time that the urine was quite bloody. He feels sure that there was no hematuria before this, and says that micturition was normal in every way before and after the onset of the bleeding. There was no swelling present in either side, and he felt well but for the dull pain in the right lumbar region which had persisted since the accident. There had been practically no let-up in the hematuria since its beginning, although the amount of blood present had varied somewhat. During this time his general health had been excellent and his only symptom had been a slight, dull pain located in the right lumbar region, almost constantly present but never severe. The blood had always been well mixed with the urine—never any clots. Never any pain nor discomfort on the left side, nor any disturbance to micturition. The urine was continually bloody and had been so for the previous 16 months. The patient had lost weight and was much weaker than normal. He had a dull pain "in the region of the right kidney" which he said felt beneath the ribs in front and in the small of the back on the right side. Occasionally the pain radiated toward the right hip bone, but never into the bladder, groin nor testicle. There was a slight increased frequency of urination and occasionally burning pain in the urethra. His sexual powers were normal, and he had no pain during ejaculation, during defecation or during urination with the exception of the occasional burning pain in the end of the penis previously spoken of.

Examination.—The patient was somewhat emaciated and rather pale. There was a slight arteriosclerosis present. The heart and lungs were negative. Neither kidney was palpable nor tender, and there was no tenderness along the course of either ureter. The patient did not complain when deep pressure was made on the region of the kidney on either side. The genitalia and rectum were negative. The urine voided in three glasses was uniformly reddish-brown in color. Under the microscope only blood cells were to be seen. There were no bacteria present.

Cystoscopic Examination.—A catheter was passed with ease and there was no stricture present. The bladder was large and difficult to wash clean of blood. The cystoscope showed a slight median prostatic bar with a shallow cleft on each side. The lateral lobes of the prostate were not enlarged. The bladder was normal. The trigone was a little irregular and hyperemic. The ureteral ridges and interureteral ligament were slightly hypertrophied. The right ureteral orifice was small, secreted at normal intervals and the urine emitted was apparently clear. The left ureteral orifice was larger, located in a prominent papilla and surrounded by congested blood vessels, but no distinct ulceration or inflammation was seen. It was secreting intermittently at normal intervals and the fluid coming from it was smoky in color. The patient was given urotropin (hexamethylenamin) and was requested to return for ureter catheterization. He was also sent to Dr. F. J. Baetjer for skiagraphs to be made.

On Dec. 4, 1906, Dr. Baetjer reported that skiagraphic examination of the kidneys was negative. Within the bony pelvis and along the supposed course of the right ureter were two small shadows about 5 mm. in diameter, lying close together and apparently about 1 cm. above the point of juncture of the ureter and bladder. They might have been phleboliths, but Dr. Baetjer was inclined to think that they were small ureteral calculi. Nothing was seen on the left side of the pelvis or along the other portions of either of the ureters.

Cystoscopic examination was again performed and bloody urine was seen coming from the left kidney and clear urine from the right.

Ureter Catheterization.—On Dec. 8, 1906, both ureters were catheterized with the double Casper ureter catheter cystoscope with very little difficulty, the catheters being introduced about 4 inches on each side. The urine coming from the left side was bloody, that from the right side was clear until about 5 c.c. had been secured; after that a small amount of blood appeared in the urine. Urine came from the left side much more rapidly than from the right, the total amount collected being about four times as much during the same interval. The urinalyses were as follows:

	Combined Urine.	Right Kidney.	Left Kidney.
Color	Dark red.	Slightly tinged with blood.	Dark Red.
Sp. Gr.	1030.	Amount too small.	Am'unt too small.
Sugar.	None.	None.	None.
Urea.		0.16.	0.19
Albumin	Considerable.	Faint trace.	Considerable.
Microscopic.	Blood corpuscles. No pus or bacteria. No casts.	Few red blood cells. No casts.	Many red blood cells. No casts.

It seemed evident from the examination that the hematuria was from the left kidney and that there were no calculi in the right ureter, as no obstruction was encountered in introducing the ureter catheter. It occurred to me that adrenalin might be useful to cause a cessation of the hemorrhage from the left kidney and I therefore decided to introduce it through the left ureteral catheter. For this purpose 2 c.c. of adrenalin was added to 8 c.c. of sterile water. With a small syringe about 3 c.c. was first injected through the catheter into the left ureter. The syringe was then removed and bloody fluid allowed to escape from the ureter catheter. When this ceased about 3 c.c. of adrenalin was again introduced. The introduction of the fluid caused pain which the patient felt in the small of the back and beneath the ribs on the left side. When some of the fluid was allowed to escape the pain became less, but after the withdrawal of the catheters, which was done after 6 c.c. of the adrenalin solution had been introduced, the pain in the region of the left kidney persisted, and after the patient was removed from the table he continued to complain of considerable pain in this region. There was no pain referred to the region of the right kidney, and in fact the patient remarked that the dull pain which had been constantly present on that side had disappeared as soon as the pain on the left side came on. The patient soon voided a considerable amount of quite bloody urine. He then lay down for a while, but after about an hour returned home.

Convalescence.—During the evening following the injection a request was received to visit the patient at his home. He felt weak and complained of considerable pain in the region of the left kidney. The urine was deep red in color; no infection was present.

On Dec. 9, 1906, the patient reported that at 8 p. m. the previous evening he had a very severe attack of colliciy pain in the left side, beginning in the region of the kidney and radiating downward to the bladder and end of the penis; he subsequently passed a large clot and the pain subsided. Seven hours later and again at 8 p. m. of that day similar attacks occurred, but they were much less severe and did not last so long. The patient said that during these attacks he voided urine which was perfectly clear, but when the pain passed away the urine was very bloody and contained clots. An examination of the clear urine passed while the left ureter was plugged, shows urea 0.22 per cent.

Dec. 10, 1906: Another very slight attack of pain; slight headache and fever.

Dec. 11, 1906: At 3 a. m. the patient had a slight attack of pain in the region of both kidneys lasting two hours. Urine was still bloody.

Dec. 12, 1906: The patient said the urine was now clear. Examination shows that it was slightly smoky and contained red blood cells. No bacteria were persent.

Dec. 15, 1906: For three days previously the patient had had only a slight pain in the region of both kidneys and the urine had been free from blood. He had had no fever, but he felt nervous.

Dec. 18, 1906: The urine was still slightly cloudy and showed red blood cells.

Dec. 21, 1906: The urine was perfectly clear in all three glasses; it was amber in color and a centrifugalized specimen showed no red blood cells nor casts. He said that there had been no blood in the urine for three days. He had a slight dull pain in the small of the back, but there was no pain in the region of either kidney, and the pain which was present in the right side up to the time of the injection of adrenalin had not been present since. He said that this was the first time in one year and four months in which the urine had been absolutely clear. He had taken no treatment except urotropin, which had been given to prevent urinary infection. This was given for a week before the ureters were catheterized, but had no effect on the hematuria.

Dec. 30, 1906: The urine was clear, but a centrifugalized specimen showed a few red blood cells. He still had a slight pain in the back, but felt well and had no frequency or difficulty of urination. Neither kidney was palpable, and there was no tenderness on deep pressure over either kidney or ureter.

Jan. 2, 1907: The urine was clear in all three glasses and centrifugalized specimen showed no red blood cells and no casts. The patient felt well, had only a slight pain in the back and the kidneys were not tender.

Feb. 2, 1907: The patient had been at work for some time. He said that he occasionally suffered from slight pain in the small of the back, which was increased somewhat by active exercise, but when he was quiet he was entirely free from pain. He slept well and felt perfectly well in the morning. He had gained 11 pounds since the injection of adrenalin and his general health was excellent. His urine continued to be entirely free from blood.

Second Examination.—The patient appeared well and his lips were of good color. There was a slight arteriosclerosis, but the pulse was regular and of good volume, 100 to the minute. Examination of the kidney was entirely negative. There was no tenderness on deep pressure either beneath the ribs or in the lumbar region, with the exception of slight tenderness on the left side on deep pressure. The urine was perfectly clear, light amber in color; sp. gr. 1019, with no albumin, no sugar, and the centrifugalized specimen showed no casts, pus, nor bacteria. He had no treatment since the injection of adrenalin, with the exception of urotropin, which he took, 20 grains daily for three days, and has taken none since.

On March 8, 1907, the patient returned for examination. He said that he had been at work daily, and that there had been no return of the hematuria. Micturition had been entirely normal. Work seemed to produce a slight pain in the back, and several times he had a dull pain in the right side of the back, and occasionally in the left side of the back. This was present only in the daytime and disappeared in the evening. He still suffered from headaches, but not nearly so severely as before. His eyes troubled him and he wore glasses which he thought did not suit him very well. He had gained in weight and general health and his strength was good. The patient looked well. Physical examination was entirely negative. The urine was clear and normal. There was no albumin, no casts, no blood, no evidence of nephritis.

The subject of renal hematuria without material cause has of late received considerable attention in the literature, and during the last few months important articles by Casper, Fowler and Chute have appeared.

Casper[1] reports seven cases of unilateral hematuria, in five of which operation was performed. In four cases the hematuria was due to chronic parenchymatous nephritis, which in two cases did not show itself until several months after the operation, although sections from the kidney at operation showed definite evidence of the disease. In one case the hemorrhage came from carcinoma involving the pelvis of the kidney. In two other cases the kidney from which the hemorrhage occurred was removed, one on account of injury to the renal vein and in the other case on account of the very weak condition of the patient. Although very careful macroscopic and microscopic examinations were made in both of these cases the source of the hemorrhage could not be made out, and with the exception of a few small fibrous points the kidney was normal.

Fowler[2] reports an interesting case of unilateral hematuria, in which he removed the kidney, microscopic examination of which showed a chronic diffuse nephritis. Subsequent to the operation an increasing amount of albumin and casts were found in the urine, and finally a few red blood corpuscles, thus showing distinctly that the apparently sound kidney was also diseased. Fowler has made a careful study of the literature and shows that many of the cases of supposed hematuria from sound kidneys were really cases of nephritis, but he quotes Schede as saying that he has found six cases recorded by competent observers in which careful microscopic studies of the extirpated kidneys showed no evidence of nephritis or other cause for the hemorrhage. I am able to add another case of unilateral hematuria without demonstrable lesion in the kidney. In this case the hematuria of several years' duration came from the left kidney. An exploratory operation was performed, and during this the ureter was accidentally torn so that nephrectomy had to be done. Very careful examination of the kidney was made in the pathological laboratory of the Johns Hopkins University and nothing abnormal was to be made out. The patient has since remained entirely well. Adding the two cases of Casper we then have at least nine cases of unilateral hematuria in which careful examination showed no evidence of nephritis or other cause for the bleeding. It therefore seems evident that there are a definite number of cases in which there is no pathological explanation for the hematuria.

As regards the character of nephritis associated with hematuria there is much divergence of opinion. Israel, Pousson, Edebohls, Rovsing and others hold that nephritis may at times be unilateral and in fact only involve isolated portions of one kidney. Fowler divides chronic nephritis associated with hematuria into two groups; first, those in which the nephritis is diffuse; sec-

1. Archiv. f. klin. Chir., Berlin, lxxx, No. 2.
2. Studies in Urological Surgery, Johns Hopkins Hospital Reports, xiii.

ond, those in which the nephritis is circumscribed or partial; and notes cases of Albarran and Nicolich in which careful pathologic examinations demonstrated lesions of this nature in two cases of unilateral hematuria. Casper, on the other hand, vigorously combats this view and holds that chronic nephritis is always double and diffuse and claims that these isolated lesions which have been described in kidneys extirpated for unilateral hematuria are frequently seen at autopsy where no hematuria had been present and are simply the results of some old lesion which had long since been cured. Similar lesions are frequently seen in various organs of the body. Casper says that he has catheterized both ureters in more than 100 cases of nephritis and has always found the albumin bilateral. He says that the urine in these cases never contains bacteria and that the nephritis is the result of toxic processes, and therefore necessarily bilateral. The unilateral nephritic lesions which have been described, he thinks, are the results of localized arteriosclerosis or focal bacterial infections and that their tendency is toward the formation of a localized area of sclerosis and is not progressive as in cases of true nephritis. Malherbe and Legueu, after an exhaustive study of the subject, assert that it is well established that chronic nephritis can establish itself in only one kidney and be characterized by a single symptom—hematuria. This is proven by numerous nephrectomies where nephritis was found and the patient has remained cured. A careful review of the literature shows that there is need of much work, both clinical and pathologic, in order to clear up this important field of renal pathology and therapeutics.

The diagnosis of the cause of unilateral renal hematuria is not always easy. Fortunately, the more common etiologic factors, calculus and tuberculosis, are usually recognized easily by means of the Roentgen ray and bacteriologic study of the urine. In the case of a tumor the diagnosis is not so easy. As a rule, however, the neoplasm reaches palpable size before the hematuria becomes marked, but in some instances this is not the case. Occasionally the Roentgen ray will show a definite enlargement of the kidney, and tumor may be suspected, although it is not palpable. In cases of hematuria associated with nephritis there may be many unmistakable signs of the disease present, but according to Albarran and Hamonic the hematuria may precede the disease by several years. As a rule, however, bilateral catheterization of the ureters will demonstrate albumin and casts in the urine from the kidney which is not bleeding. Casper says that cryoscopy is of little help in these cases and that the elimination of the sugar after phloridzin injections is about the same from both kidneys. In only one of four cases did Casper find the urine, obtained by ureter catheterization from the non-bleeding kidney, to be free from albumin or casts, and as the kidney was not removed in this case it is impossible to say that the albumin which has persisted does not come from the kidney operated on and that he had a definite case of unilateral nephritis. In both of Casper's cases in which the extirpated kidney was found to be free from nephritis the urine obtained by catheter from the non-bleeding side showed no casts and practically no albumin. The same was true in my case. It seems, therefore, to be pretty definitely shown that simultaneous bilateral ureter catheterization will generally show evidence of nephritis in the non-bleeding kidney if such disease is present, and that in cases where the urine thus obtained is entirely normal the diagnosis of bilateral nephritis, at least, can be excluded.

PROGNOSIS.

This study of the literature has shown conclusively that great importance should be given to apparently causeless hematuria and that it should not be allowed to run on indefinitely without due efforts being made to determine the etiology. For this purpose bilateral ureter catheterization should always be done. The double ureter catheterization cystoscope of Casper has proved the most effective instrument for the purpose in my hands, but the new Nitze instrument is perhaps easier to manipulate. The operation can be done under local cocain anesthesia (4 per tcent. cocain in bladder and urethra), generally with little pain and without much difficulty.

Enough urine should be collected for a careful urinalysis, and a comparison between the separate specimens and the combined urine voided immediately before catheterization made. The case reported at the beginning of this paper demonstrates to my mind the importance of attempting to stop the hemorrhage by the injection of adrenalin through the ureteral catheter. The excellent result which was obtained in this case proves conclusively its therapeutic value in certain cases, and I am convinced that it is practically free from danger. Even in cases where a definite lesion, such as nephritis or renal tumor, may be present the use of adrenalin would not seem to be contraindicated; in fact, it may prove of great diagnostic value. It would seem probable that, in cases of nephritis, if the hematuria ceased after the use of adrenalin, a better opportunity would be afforded for carefully examining the urine and determining the presence of a nephritis, and it is possible that the hemorrhage with its marked weakening effects might completely disappear, even though the nephritis persisted. In the case of renal tumor I do not believe its use would be contraindicated, because I am firmly convinced that if the hemorrhage were due to ulceration of the new growth into the urinary passages it would promptly recur, so that the use of the adrenalin would not greatly delay an exploratory operation to determine the exact nature of the lesion. On the other hand, if a neoplasm were suspected the subsequent ureteral catheterization when the urine is free from blood would give a far better opportunity to study the relative value of the urine from the two sides and by functional diagnosis aid in the recognition of marked renal impairment on the bleeding side, a finding which would be suggestive of tumor.

As remarked above, however, the question of renal hematuria without other symptoms is a subject about which comparatively little is known and should receive considerable study in the future. With the use of adrenalin to stop hemorrhage we may have a measure of considerable diagnostic and therapeutic value. If we can in this way cure, as in the case reported above, cases of persistent hematuria without definite renal disease much will be gained and patients saved from the ordeal of cutting operations. If only a temporary cessation of the hematuria can be procured in other cases a chance will be afforded for a more careful study of the urine and a comparison of the function of the kidneys which may make renal diagnosis much more easy.

The Urine in Nephritis.—W. G. Vincent (*New York Med. Jour.*), states that the further we get away from the strictly parenchymatous types of nephritis the less we can depend on the urine examinations alone to determine the actual pathologic condition of the kidney, though they give us an approximate measure of its functional value.

STRANGULATED HERNIA.*

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Clinically, the term strangulated hernia refers to strangulated abdominal types. It may be defined as "that condition in which the contents of the sac are so constricted or girt about that there follows pain, obstruction, vomiting, irreducibility and absence of expansive impulse."[1] The relative frequency of strangulation, based on a report of 529 cases, is as follows:

250 cases of strangulated femoral hernia.
250 cases of strangulated inguinal hernia.
29 cases of all other abdominal types.[2]

The pathology of strangulation may be considered with reference to the gross anatomy of hernia, the histopathology of the strangulated parts, and the mechanisms precipitating the crisis.

By reference to the gross anatomy it is observed that the constriction may occur in the canal transmitting the hernia, in the hernial sac or its contents (Figs. 1 to 7). If in the canal, it is usually at one of the natural openings or rings guarding the entrance and exit (Fig. 2). Otherwise, it may be determined by cicatricial contracture, or by the pressure of a neoplastic or inflammatory swelling (Figs. 3 and 4). If in the hernial sac, it may be at one or more places in the neck or fundus, or in a diverticulum (Figs. 4 and 5). In such cases the sac is usually thickened by hyperplasia, or by plicature of its lining. If in the hernial contents, it is secondary to adhesions or the direct result of volvulus (Fig. 6). Constriction may also occur at a rent in the sac through which the hernial contents have extruded (Fig. 5).

The histopathology of the strangulated parts is essentially that of the phenomena accompanying passive congestion, septic infection, and moist gangrene.

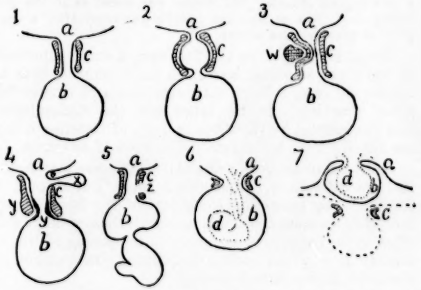
Our present knowledge of the mechanisms precipitating strangulation is hypothetical. The two essential elements in strangulation are the constriction itself and the hernial contents bound off by it. The first is usually a constant; the second is a variant, in that it is subject to rapid alterations in anatomic make up, form, volume and position. In connection with the forces exciting these critical alterations, it may produce strangulation in the following ways: 1, By passing through the constriction under sufficient pressure to induce strangulation at once; 2, by undergoing critical alterations, after having safely passed the constriction, that increase the pressure to the point of strangulation; 3, by the passage of an additional structure through a constriction filled with all the hernial contents it can safely transmit; 4, by volvulus in a part or all the hernial contents. The constriction itself, which is practically a constant, may become a variant by critical contraction of its lumen, incident to cicatricial thickening, acute swelling, or external pressure. Thus it may close too tightly about the contents of an unreduced hernia and bring on strangulation.

SIGNS AND SYMPTOMS OF STRANGULATION.

The earlier symptoms and signs of strangulation are abdominal pain, vomiting, quickened pulse and sometimes elevation of temperature, associated with irreducibility, absence of expansile impulse, and increasing volume, turgidity and tenderness of the hernia. If the bowel is caught, we have the additional symptoms of intestinal obstruction and cessation of the gurgling sound within the hernial sac. The late symptoms are essentially those of peritonitis or of abscess formation, and the more aggravated manifestations of intestinal obstruction. The pain is intermittent and colicky or continuous. At first it may be general or localized about the umbilicus or epigastrium; finally it centers at the seat of strangulation. The vomiting is at first reflex, but later is due to reversed peristalsis or the direct action of septic poisons on certain brain centers. Stercoraceous vomiting seldom begins inside of forty-eight hours. Tenderness over the tumor may develop later. A sudden cessation of pain and of symptomatic violence without reduction of the hernia is a bad omen.

DIAGNOSIS AND PROGNOSIS.

The diagnosis of concealed strangulated hernia is of vital importance. Persistent abdominal pain, especially if accompanied by vomiting, with the diagnosis unsettled, demands a search for this condition. Strangulation of Richter's hernia, one in which only a part of the circumference of the bowel is caught, is most fatal and difficult to diagnose. In operating for this condition, it is essential not to allow the strangulated segment to slip into the abdomen without thorough examination.



Strangulated Hernia.—a, abdominal cavity; b, hernial sac, neck and fundus; c, hernial canal; d, hernial contents; w, mass exerting pressure; x, diverticulum; y, cicatricial contraction; z, rent in sac.

As to prognosis, it is well to remember that the passing of each succeeding hour with strangulation unrelieved portends a decreasing chance of recovery and an increasing probability of a tedious convalescence in case of survival. In violent cases after twelve hours, and in all cases after twenty-four hours, the mortality is increased by further delay at an alarming rate.

Strangulation is more common and more rapidly fatal in enterocele than in epiplocele or in entero-epiplocele. It is also more common in small and recent hernias than in large and old ones. Femoral strangulations have a larger mortality than inguinal types. To illustrate, I shall describe two cases of strangulated femoral hernia referred to me by Dr. Van der Slice, of Cheneys, Neb.

CASE 1.—April, 1905.—Patient, a farmer's wife, of middle age, had been afflicted with a small femoral rupture for two years. At 9 o'clock one morning she noticed that her rupture had come down and could not be reduced. Dr. Van der Slice was called and taxis tried without avail. I saw the case with the doctor at 6 p. m. We decided to prepare and operate imediately, if taxis under anesthesia would not relieve her. By 8 p. m. we were ready, having improvised baking pans for sterilizers and pie pans for instrument trays. The patient was rapidly getting worse. Dr. Myers of Bennett ad-

*Read at the Johnson County Medical Society annual meeting, Jan. 15, 1907, Tecumseh, Neb.
1. Agnew's Surgery.
2. Hancock on Strangulated Hernia.

ministered chloroform and taxis was tried for five minutes with negative results. The tissues were incised down to the hernial sac and bloody serum was encountered both outside and inside of it. A small knuckle of ileum was found badly strangulated and of a dark purple color. Hey's ligament was cut to release the constriction at the external femoral ring, and the bowel drawn out. Although the intestine had been strangulated for only twelve hours, the state of affairs within and about the sac indicated that gangrene would have set in shortly. It was decided to replace the loop within the abdomen. The femoral canal was obliterated by four interrupted sutures through the deep crural arch above, and the tissues over the ramus pubes below. The wound was closed under aseptic conditions and the patient made an uneventful recovery.

CASE 2.—December, 1906. A farmer's wife, of middle age, with large irreducible femoral hernia of twenty-five years' standing, was taken sick with the usual symptoms of strangulation. At the end of twenty-four hours Dr. Van der Slice was called. At the end of thirty-six hours, consultation was held and immediate operation urged. The patient grew worse steadily. I operated toward the end of the second day without attempting taxis. The sac was large and filled with omentum and a large loop of sigmoid colon. There was some clear serum in the sac. The bowel and omentum were partially but not severely strangulated. The neck of the sac was large and the omentum firmly adherent to three-fourths of its circumference. It was necessary to cut the deep crural arch slightly to reduce the bowel. The omentum was ligated, amputated, and the stump of it sewed within the femoral canal, making as it were a new septum crurale. The wound was closed as in the preceding case. The patient has recently recovered after a complicated postoperative course.

The strangulation in the first case, a small enterocele of two years' standing, was much more complete than in the second case, a large entero-epiplocele of twenty-five years' standing. In the latter case the strangulation was precipitated by the slipping down of intestine into a sac already filled by an irreducible mass of omentum.

If omentum alone is strangulated, the case may result in recovery with an irreducible hernia. But since it is impossible to know that some part of the bowel is not included, we must treat each case with those prompt and often radical measures necessary to the saving of life in strangulation of the bowel. Unrelieved strangulation of the bowel means certain death.

As to treatment, it is best at the outset to throw a bomb shell into the midst of those who have it in hand to say what shall be done by telling them the patient will shortly die unless relieved. If they doubt you, call for intelligent counsel, and go about your task.

After the diagnosis, determine whether it is a case for taxis or not, bearing in mind the following contraindications: 1, When taxis has already been thoroughly tried; 2, when the case is extremely acute and violent; 3, when several days have intervened; 4, when dealing with an irreducible hernia; 5, when stercoraceous vomiting occurs; 6, when there is a suspicion of inflammation or gangrene; 7, when a skilful and clean operation can be immediately performed.

Taxis can not be done thoroughly without a general anesthetic. Place the patient in such a position that gravity favors reduction. If an inguinal hernia, flex the pelvis and thorax ventrad to relax the anterior abdominal wall. If a femoral hernia, the leg of the same side should be partially flexed, adducted and rotated inward to relax the fascia lata. The tumor should be drawn down in a line with the long axis of the canal transmitting the hernia. Then, while firm, continuous, even pressure is made to direct the contents of the sac in a line perpendicular to the plane of the opening through which they must first pass; traction enough should be made on the sac to draw out the folds into which it may be thrown at the neck. The fingers of one or both hands should be so applied as to mold the part which must first pass the constriction into that form most favorable to its return. Taxis should not exceed ten minutes, for he who persists unduly will be inviting death oftener than relief. If taxis fails, immediate operation should be carried out under aseptic precautions, in order that the hernial canal, the sac and its contents may be dealt with as they severally require.

When the hernia apparently has been reduced by taxis, and symptoms of strangulation continue, one of the following conditions may be present:

1. Another strangulated hernia.
2. Strangulation within the reduced contents.
3. Paresis of the released intestine.
4. Reduction *en bloc* (Fig. 7).
5. Reduction beyond the first but not beyond the second narrow where strangulation persists.
6. Presence of strangulation in an interstitial diverticulum of the sac.
7. Eruption of the hernial contents through the sac into the interstitial tissues of the abdominal wall.

The situation must be met by eliminating the possibility of another strangulated hernia, and operating according to indications. If it is probable that the hernial contents have not entered the abdomen, they can be exposed by an incision over the hernial tract. If they have entered the abdomen, a median laparotomy incision will, as a rule, be most serviceable.

Following actual relief of strangulation by taxis, other serious conditions may arise. Chief among these are peritonitis and hemorrhage. Such unfortunate occurrences may be due to direct injury from rough handling of the hernia, or to the fact that necrosis or active inflammation had actually set in before reduction. Again, these conditions are surgical and must be met promptly as the special case demands.

Finally, to the end of saving life in this crisis, let us bear in mind the words of Macbeth that

> If it were done, when 'tis done, then 'twere well
> It were done quickly.

VASCULAR LESIONS OCCURRING SUBSEQUENT TO ABDOMINAL SECTION.*

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There are three bounden duties which the conscientious up-to-date surgeon feels called on to fulfill. These are, first, preservation and publication from time to time of accurate and authentic records of his work; second, the publication in the current literature of all anomalous and unusual cases, or cases of extraordinary interest, which chance to fall in his way, wherefrom the collators of the profession may eventually cull some previously unknown fact or arrive at more or less positive statistics of the rare condition; third, and morally foremost, careful reports of accidents that have occurred in his hands in order that not only he himself may profit by the lessons to be derived therefrom, but that the profession at large, and the laity indirectly, may enjoy the benefits of his painfully-acquired information.

The cases that have become the texts for this article come under the third of these classes, and I report them,

* Read before the Atlantic City Academy of Medicine, Feb. 15, 1907.

regretfully, it is true, but without hesitation, since I have learned from them, and it may be that others can do so also.

What surgeon has not seen the patient of whose recovery he was most confident suddenly succumb to one of the grave accidents which are liable to occur in all major operations, while the patient for whose recovery he had but little hope pulls through with an almost uneventful convalescence? A suddenly developing ileus, an ether pneumonia, a thrombosis or embolism, a brown atrophy of the heart, or a postoperative hemorrhage sweeps the patient into eternity almost before the surgeon is aware. It is to one class of these startling developments that I wish to direct attention, namely, postoperative vascular complications. These vascular lesions, which may occur after any major operation, are hemorrhage, thrombosis and embolism.

POSTOPERATIVE HEMORRHAGE.

Patient.—Mrs. M., aged 32, was referred to me by Dr. J. P. Crozier Griffith.

History.—A large multilocular cyst of the left ovary had extended upward until it lodged under the stomach; it had also developed well toward the liver. The symptoms, in addition to the presence of the tumor, were pain and discomfort, tenderness on palpation, and reflex nervous manifestations, including irritability of the stomach. There was considerable constipation and some pressure pain extending down the left thigh.

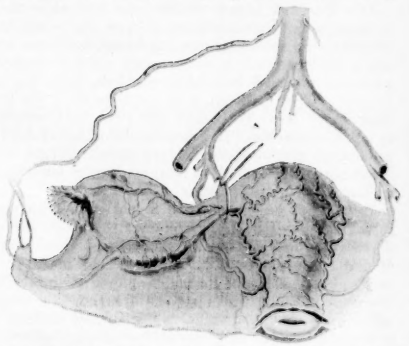
Diagnosis.—I made a diagnosis of tumor, probably ovarian in nature, which was confirmed by Dr. T. S. K. Morton, and an operation was advised.

Operation.—On Nov. 25, 1904, at noon, a median incision was made and a large cystic mass was revealed. It was absolutely free from adhesions, save at one point, where the omentum had become attached to the cyst wall. After tapping the cavities the retaining wall was readily eventrated and it was found to taper down to a small left-sided pedicle which admitted of easy ligation. The right ovary and tube were healthy and were not disturbed. After making a careful toilet of the peritoneum the abdominal cavity was closed and the patient removed from the table, the entire operation consuming but half an hour.

Postoperative History.—As I was compelled to leave the city for a few hours immediately after the operation my friend and colleague, Dr. Harris A. Slocum, very kindly consented to respond to any summons, should assistance be required. On my return to the city at 6:30 p. m. I found a hasty call, and on reaching the hospital I found Dr. Slocum searching the abdominal cavity for the bleeding point. The hemorrhage had been extreme and the patient was blanched. Direct venous transfusion of physiologic salt solution was made into the right arm, and while this was being done the bleeding point was discovered three inches to the outer side of the pedicle which was found to be securely ligated. Owing to the collapsed condition of the patient a Mikulicz packing was made, instead of the prolonged effort to accomplish direct ligation of the bleeding point, and the hemorrhage was effectually controlled in this manner. A large quantity of physiologic salt solution was introduced into the bowel and an additional amount was injected under the mammary gland as well as intravenously. Under the most active stimulation the patient rallied sufficiently to recognize me and her husband. The shock had been too profound, however, and she died at 9:30 p. m.

Here was a case terminating fatally from that most appalling of postoperative accidents—hemorrhage. In the vast majority of such cases the surgeon, shrink as he may from acknowledging the truth, has but himself to blame for the unfortunate termination. Generally such an accident results from an improperly or carelessly-applied ligature or from the use of unsuitable material. Primary slipping of the ligature is due either to a careless tying of the thread or to an extreme tension placed on the pedicle when a considerable bulk of the broad ligament has been included in the knot or when this structure is congenitally unusually taut. It is always the upper outer margin of the ligament on which the greatest tension falls, and it is this portion that first disengages itself from the ligature when slipping occurs. Unfortunately, it is just here, as we all know, that the ovarian artery runs on its course from the aorta to the uterine fundus. It was to obviate the possibility of the occurrence of this accidental slipping that the improvement in the technic, which is now almost universally adopted, was suggested, namely, the ligation of the ovarian artery in the broad ligament beyond the distal extremity of the Fallopian tube. At this point firm ligation can be secured without the possibility of extreme tension resulting from the inclusion of a large quantity of tissue in the tubo-ovarian pedicle (see illustration). A second ligature applied at the uterine cornu will include the small ascending branch from the uterine artery, and thus all danger of primary hemorrhage from slipping of the ligature will be avoided, provided the knots be securely tied.

In the unfortunate case I have reported, however, it will be noticed that the hemorrhage was not due to slipping of the ligature. At the time of the secondary operation the ligature was found intact and doing all that was required of it. On the contrary, the bleeding resulted from what I believe to be an exceedingly rare postoperative accident, notwithstanding the statements of some authorities in abdominal surgery. A large and widely-distended broad ligament vein had burst spontaneously some time after the closure of the abdominal incision, probably during the wrenching of the ether vomiting, and from this unlooked-for source had the fatal hemorrhage taken place. Now, it so happened that one hour subsequent to the death of my patient I chanced to take up Byron Robinson's work, "Landmarks in Gynecology," and on page 53 I was astounded to read the statement: "The pelvic veins frequently rupture postoperative." That they do so rupture occasionally I can now bear witness; that this rupture is of frequent occurrence I confess I entertain very serious doubts.



Improved and generally accepted method of ligating the broad ligament to prevent slipping of the ligature. Looking from behind forward.

It is not difficult to understand the manner in which such a venous rupture may be produced. Three factors probably play their respective rôles in the development

of the condition. In the first place there must undoubtedly supervene immediately on the ligation of the vessels, with the consequent break in the arteriovenous circle, a temporary stasis in the pelvic circulation on the side involved, with more or less distension of the veins of the corresponding pampiniform plexus. This condition may even advance to a decided varix of the broad ligament. The intravenous tension is thereby vastly increased, and any vessel, the weakest point in the circuit, may yield to the pressure.

In the second place the removal of these large pelvic tumors is followed by a decided diminution in the intra-abdominal pressure. There is produced at once an accentuation of the intravascular pressure, and this steadily increases up to a certain point as the patient rallies from the surgical shock. This necessarily contributes to the strain thrown on the broad-ligament veins, which, as has been amply demonstrated by the pathologists, suffer during the development of the tumor, more or less thinning of their walls, which in many instances are reduced to but a single layer— the intima. This thinning, which constitutes the third factor in the production of the rupture is, in reality, the primary and leading cause of the grave accident.

It will be well to note at this point that while the patient is in the Trendelenburg position the pelvic intravascular pressure is considerably lessened, so that a tendency to bleed from an obscure open vessel or from torn adhesions may not be evident until the table has been lowered. This fact was first noted publicly by Buckmaster,[1] of New York, and has since been confirmed by other operators. The obvious deduction is that the abdominal incision should not be closed until an ocular inspection of the cavity has been made after lowering the patient to the dorsal position.

It will not be inopportune to put myself on record as saying that I do not think that the blame for such a grave accident as primary hemorrhage from slipping of the ligature should be attributed so much to the material used as to the method employed in the ligation. There are distinguished surgeons throughout the country who, in all their abdominal work, employ nothing but chromicized catgut and who seldom if ever have to report a slipping or too speedy absorption of the gut. Again, there are other surgeons, just as able and distinguished, who employ silk only with equally excellent results. It is not the material but the hand that uses it. The ablest surgeon may mistake the degree of tension he has exerted in tying the knot, and the trusted and most thoroughly prepared and tested gut may yield or become absorbed before the allotted time. In either case the result is the same, and the surgeon and patient both suffer.

Secondary postoperative hemorrhage is of rare occurrence and can result only from absorption of a catgut ligature, as in a case recorded by Howard Kelly,[2] in which the bleeding occurred on the eighth day, or from sloughing of the devitalized pedicle, as after the use of clamps or charring of the stump.

To review, from what we have seen thus far we may classify postoperative hemorrhages as primary and secondary. Primary postoperative hemorrhage may be intraperitoneal, due to (1) slipping or loosening of the ligature; (2) oozing from large raw surfaces, such as are present in incompletely removed growths, or from extensive adhesions to omentum and peritoneum; (3) spontaneous rupture of the pelvic veins from increased intravascular pressure with lessened resisting power in the vessel walls; (4) subperitoneal hemorrhage from imperfect ligation of the connective tissue or peritoneum over and in front of the open mouth of a retracted vessel. The hemorrhage in the latter case, as Voiturioz[3] has indicated, may be limited and encysted, in which case the blood collects in the cellular tissue of the broad ligament to form a hematoma, or it may flow freely from the vagina.

In any case of bleeding if the hemorrhage has been excessive the danger ensues from the lowering of the blood tension because of the loss of fluid rather than from the diminution in the number of blood corpuscles. Hence the value of physiologic salt solution, by the use of which the lowered tension can be speedily corrected, the fluid being injected intravenously or by hypodermoclysis, or both, as in the case reported.

THROMBOSIS AND EMBOLISM.

History.—I operated on Miss C., aged 26, in March, 1906, for cystic degeneration of the left ovary. The organ was considerably enlarged and sensitive, and especially painful during and after the menstrual periods. This condition had persisted for some years, and as the severity of the attacks was steadily increasing, relief was sought in extirpation of the painful gland. The operation was a simple one and unattended by any complications. There was but little visceral manipulation, although the broad ligament was tense and the appendage could be brought into the operative field only with difficulty. The convalescence was perfectly normal until the eleventh day, when some pain was complained of in the right thigh, and this soon extended down the leg. An examination revealed a slight puffiness around the ankle and some tenderness over the femoral vein. The swelling soon involved the entire limb, but at no time did it reach an extreme degree. There was an increase of from two to three inches in the circumference of the leg, but the tissues were not tense nor did the limb present the characteristic milky whiteness of the typical phlegmasia alba dolens. The temperature never reached the 100 F. mark, but the pulse was considerably accelerated, ranging from 95 to 110 beats a minute. The usual course of treatment for phlegmasia was instituted, namely, absolute rest and elevation of the limb, which was wrapped in cotton, on pillows. The swelling gradually lessened and beyond the protracted stay in bed no other abnormal features marred the progress of the case.

Here was a typical though light attack of right-sided phlegmasia alba dolens occurring after a simple left salpingo-oöphorectomy without complications. There had not been excessive handling of the parts; there were no clinical symptoms of septic infection; the operation had not been prolonged nor severe and hemorrhagic, and the patient was not unusually anemic or run down in general health. There had been, however, some considerable traction on the left broad ligament, and presumably on the uterus and opposite broad ligament, in order to bring the diseased appendage into view.

Krusen[4] of Philadelphia has called attention to the scantiness of the literature on the subject of postoperative thrombosis and embolism, and he has emphasized a fact which is demonstrated by my case, namely, that in almost all the cases recorded in the literature the symptoms have developed uniformly when the patient was doing well, and often when the cure was considered complete. This is especially true of the reported cases of embolism, which, almost without exception, have developed with appalling suddenness in patients who were thoroughly convalescent.

1. Ann. of Gyn. and Pediat., May, 1894.
2. Med. Record, June 8, 1901.
3. Jour. d. Sci. Med., Lille, Jan. 25, 1902.
4. Am. Jour. Obst., 1906, liii, 478.

The frequency of postoperative thrombosis is not great. Many surgeons fail to see a case in an experience covering many hundreds of operations. Schenck was able to gather the records of but 48 cases of thrombosis in 7,130 gynecologic operations—about .6 of 1 per cent. of the cases. Dearborn[5] holds that thrombosis and embolism are more common after operations in the pelvis than after operations on any other portion of the body. It is well known that embolism has not infrequently been noted after operations on the appendix, but what there is in pelvic and abdominal operations to favor the development of thrombosis and embolism still remains one of the unsolved mysteries of the surgical art. Dearborn suggests that in all probability some of the cases of embolism are overlooked, and that it is possible that many of the cases of pleurisy, pneumonia and pulmonary abscess, following surgical operations, are the direct result of minute embolic obstruction in the parts. Since it is well known that the commonest seat of aggravated and fatal embolism is the pulmonary region, this suggestion is very pertinent.

The causes of postoperative thrombosis have not been definitely ascertained for all cases. There are undoubtedly some factors that are positive in their etiologic relationship to the condition. Thus, there can be no doubt that some cases follow a mild degree of septic infection, due to some error in the technic of the operation. To conclude, however, that every case of phlegmasia following abdominal section is septic in origin is, in the highest degree, erroneous. The absence of fever in many of the cases—as in the one I have reported—would in and of itself indicate that it was probably a non-septic condition.

Another strongly predisposing factor in the development of thrombosis is prolongation and severity of the operation, especially when the hemorrhage has been considerable. Thus Agnew, in his "Surgery," remarks that: "After operation in which much blood has been lost, there is always more or less tendency to the formation of coagula. This may take place in the vessels of the extremities." In the case just reported, the operation was not prolonged nor severe, nor was there the loss of a teaspoonful of blood. Therefore, this second factor must be eliminated in this case. It is interesting to note in regard to this etiologic factor of an increased tendency to the formation of coagula, that recently M. Schwab[6] has stated that a study of the coagulability of the blood in 30 patients failed to show any appreciable difference in the time required for the appearance of threads of fibrin in the hanging drop of blood in patients who afterward suffered from embolism, and in the blood of those who did not. This only demonstrates the fact that our knowledge of the interesting study of coagulability of the blood, as of leucocytosis and other seemingly important subjects, is still exceedingly limited.

Anemia and cachexia in association with malignancy; injury to the large venous trunks by too forcible use of retractors; ligation of a vein close to the point at which it enters the main venous trunk, with extension of the clot into the larger vessel; the prolonged use of the Trendelenburg position,[7] altered metabolism due to peritoneal exposure and manipulation, and injury of the fine sympathetic nervules—all these have been suggested as possible causes of pelvic and femoral thrombosis following abdominal section. The truth is, that with the exception of the comparatively small percentage of the cases resulting from sepsis, hemorrhage and severity of operation, we do not yet know the true etiologic history of this curious and frequently serious or fatal condition. Here is opened up a field for interesting original research work. The compilation and tabulation of all recorded postoperative cases of thrombosis might show some hitherto unrecognized fact that would do much to clear away the obscurity that at present veils this interesting surgical complication. With our present limited knowledge of the subject, many of the cases can not be ascribed to any of the possible causes that have been offered in explanation of the occurrence of the accident.

In regard to the symptomatology of thrombosis, as Mahler has indicated, the most important phenomenon is a persistent frequency of the pulse rate, out of all proportion to the elevation of the temperature. Dearborn, in his able résumé of the subjects, remarks that any sudden increase in the pulse rate during convalescence from an operation, the temperature remaining about normal, should lead one to think of the possibility of the development of a thrombosis. He further adds that if there are evidences of phlebitis or thrombosis absolute rest in bed must be insisted on. Here he hits on the main element in the treatment of the condition. Absolute immobility of the affected limb, external warmth, emollient and antiphlogistic applications along the course of the thrombosed vein and thorough asepsis of the primary wound comprise about all that can be done to relieve the patient.

5. Ann. Gyn. and Pedlat., November, 1904.
6. Münch. med. Wochschr., November, 1906.
7. Strauch: Centrbl. f. Gynak., xiii, 1894.

THE ACTION OF THE EXTRACT OF THE SUPRARENAL GLAND AND THE METHOD AND INDICATIONS FOR ITS USE.

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The value of the extract of the suprarenal gland as a topical application to the mucous membranes, especially of the nose and throat, is well established. Recently it has been employed extensively in a variety of different conditions, those deserving special mention being cardiac insufficiency, hemorrhage, bronchial asthma and in the treatment of various exudates and transudates in the body cavities. As it is a drug with a very decided physiologic action, we should be familiar with its effect and indications for its use.

PHYSIOLOGIC ACTION.

Inasmuch as adrenalin has been employed in most of the experimental and clinical work this term will be used, bearing in mind, however, that the active principle under various other trade names has the same effect.

The action of adrenalin, in general, simulates that of electrical excitation of the sympathetic nerves. So exact is this selective action that it is assumed that an organ contains sympathetic fibers if it contracts under the influence of adrenalin, as plain muscle without sympathetic fibers is not affected. In the past it has been disputed whether this action on the sympathetic was central or peripheral. At present it is generally conceded that the action is a peripheral one affecting the neuromuscular function. The most important action of adrenalin is on the cardiovascular system, the effect produced being the same as would follow electrical excitation of the sympathetic. Three minims of the 1-1000 solution injected intravenously into a rabbit within thirty seconds will cause a rise in pressure of from 40 to 80 millimeters of mercury. This maximum pressure is only maintained

for twenty or thirty seconds, then gradually falls, reaching normal in from two to five minutes. This return to normal is not due to disappearance of the adrenalin, but to fatigue, as it has been shown that the blood of the animal, even thirty minutes later, if injected into another rabbit, will produce the typical rise in pressure. If a rabbit receives repeated doses at short intervals the pressure effect will be less and less marked until finally scarcely any reaction occurs. However, by continuous intravenous transfusions of very dilute solutions, from 1-500 to 1-1,000,000, a moderate increase in pressure, as shown by Crile,[1] may be maintained for several hours. The increase in pressure is due chiefly to vasoconstrictor effect, partly to its direct accelerative action on the heart; very soon, however, a peripheral nervous impulse slows the heart by overpowering the accelerative influence of the adrenalin. Later when the pressure begins to fall the acceleration reappears and may continue for some time after the pressure has reached normal.

Plethysmographic tracings, during the period of high pressure, show that the output of blood at each contraction is considerably increased, indicating dilatation of the cardiac chambers, due to inability of the right ventricle to empty itself completely against the increased resistance. So great may this resistance become that the serum is forced out through the thinned ventricular wall into the pericardial sac, as first mentioned by Oliver and Schafer and which I have observed in one rabbit after a fatal dose. The venous pressure rises very slightly. In the various vessels the degree of constriction is in proportion to their sympathetic innervations. According to Schafer, the coronary vessels do not take part in this constriction on account of the absence of vasoconstrictor fibers. Brodie and Dixon[2] believe they have demonstrated the absence of sympathetic fibers in the lesser circulation in the lungs, as they maintain that these organs are not constricted by adrenalin. This very important point from a therapeutic standpoint has been disputed by Plummer and must be considered as still in doubt.

METHOD OF ADMINISTRATION.

Large amounts may be given by mouth without any demonstrable effect on the cardiovascular system. I have administered 5 c.c. at a single dose to an adult without any subjective effect or increase in pressure that could be detected with the Stanton instrument, although taking the pressure every two minutes for the period of one hour. D'Amato[3] has shown that very large doses given in this manner to rabbits do not increase pressure, although they may cause arterial degeneration. It is evident that the only indication for adrenalin by mouth would be for its local effect in hemorrhage from the esophagus or stomach. It is valueless given in this way in intestinal hemorrhage on account of the readiness with which it is decomposed in the stomach. Applied to the mucous membrane it does not usually have any constitutional effect, the action being entirely local. Bennett,[4] however, recently reported marked cardiac disturbance with pulmonary edema after a urethral injection, absorption probably taking place through an open vessel. Freely applied to the nasal mucous membrane of man or rabbit, it does not cause a rise in blood pressure. This is explained by the local vasoconstrictor action being so great that an insufficient amount of the drug reaches the general circulation.

The results of subcutaneous injection are not uniform. The general opinion has been that when administered in this way the drug does not cause a rise in pressure. Recently in going over this work experimentally I found that in some rabbits doses of 1 c.c. were without effect; in other rabbits the same amount would cause a very marked rise in blood pressure, the curve being different from that of intravenous injections. The first effect is observed about one minute after injection, when a very gradual rise begins, the maximum of from 30 to 40 mm. is reached in from three to five minutes, gradually reaching normal in from twenty-five to thirty minutes. Meltzer[5] has obtained these same results, but is inclined to believe that in the cases in which a rise occurs the needle has entered the muscle. I have observed a marked rise, however, when exercising special care in introducing the adrenalin, and believe that subcutaneously an increase in the general blood pressure often occurs. I have obtained similar results in man when using subcutaneous injections. In eight cases, using 1 c.c., in which careful blood pressure observations were made, seven responded with a rise in pressure of from 10 to 45 mm. of Hg, the first effect being observed in about one minute, the maximum in from three to four and one-half minutes; the maximum was maintained for from eight to eighteen minutes, the return to normal requiring from twenty-six to forty-five minutes. In one patient, a nephritic with a normal pressure of 150 mm., no rise occurred.

Intramuscularly, as Meltzer has shown, there is always a decided reaction. The rise is more gradual than after the intravenous injection and much more prompt than after its subcutaneous use. The duration and action is also considerably greater than after its intravenous injection. We see, then, that a cardiovascular effect can only constantly be expected after subcutaneous intramuscular or intravenous use of this drug. When considering its application in cardiovascular conditions, the best method of administering it in any special case will be discussed.

USE IN CARDIOVASCULAR CONDITIONS.

On account of its marked vasoconstrictor action the field of its greatest influence is conditions in which there is marked vasodilatation with good heart muscle. This latter should be emphasized, as the sudden increased work can only be borne by a good heart. These indications are present in chloral poisoning, shock and heart failure in chloroform or ether anesthesia. Under these circumstances there is a very low blood pressure, due largely to vasodilatation. Gottlieb[6] has shown that when a rabbit has received increasing doses of chloral until the heart comes to a standstill the injections of suprarenal extract will start the heart beating and maintain it for from 20 to 30 minutes, and by repeated injections it may be kept beating for hours. Even when the heart had stopped beating five minutes, by injecting adrenalin and compressing the thorax he was able to start it again, and in one minute to have a blood pressure of from 50 to 60 mm. Hg. In man, when using adrenalin for this purpose, the drug should be given intravenously in from 5 to 10 minim doses, repeated as often as required, or, better, continuing intravenous transfusion of normal salt solution in strength of from 1-50,000 to

1. Jour. Exp. Med., viii, 713.
2. Eng. Jour. Phys., xxx, p. 476.
3. Berlin klin. Wochschr., 1906, p. 1100.
4. THE JOURNAL A. M. A., Nov. 17, 1906, p. 1655.
5. Meltzer and Auer Jour. Exp. Med., 1905, p. 114.
6. Arch. f. exper. u. Pharm., xxxviii and xiii.

1-100,000. Gottleib has shown that adrenalin is far superior to digitalis under these circumstances. Crile has demonstrated its value in surgical shock. Miles and Muhlberg caused vasomotor collapse in a rabbit by giving ether, and were able with adrenalin to cause a very prompt and marked rise in pressure, which persisted for five minutes or until the danger was past. In shock and in chloroform and ether poisoning the drug should be given intravenously. For the former, as a prolonged action is needed, continuous intravenous transfusion of a solution of from 1-50,000 to 1-100,000 is most desirable. With the latter a single injection of 10 minims of the 1-1000 solution should suffice. We have here probably the field of greatest usefulness for adrenalin. In these conditions it is a safe remedy and probably of much greater value than strychnia or digitalis.

When we consider its use in the heart failure of acute infection it is quite another problem. Here vasomotor paresis probably plays a very important rôle. We have also, however, a degenerated heart muscle and it is, furthermore, not a question of maintaining the circulation for a few minutes, but for hours or even days. Under these circumstances the intravenous use of adrenalin, by its vasoconstrictor, throws such an enormously increased work on a diseased heart that acute dilatation with fatal termination may follow. Gottleib has demonstrated this in a rabbit that received daily doses of diphtheria toxin until evidence of cardiovascular disturbance appeared. An injection of adrenalin then raised the pressure from 56 mm. Hg to 132 mm., and maintained it there for a short time. It then sank lower and lower, a fatal termination being reached in a few minutes. Here the first result was apparently beneficial, but the heart was unable to maintain this increased work, and dilatation and death followed. The same results were obtained in animals poisoned with phosphorus. If adrenalin is allowable at all in this group of cases it should be administered subcutaneously, as the increase in pressure is then much more gradual.

At the recent meeting of the Association of American Physicians there was considerable discussion on its value in acute pulmonary edema. Experimentally it is well known that the usual cause of death in rabbits after an excessive dose is acute pulmonary edema. Bennett[4] has recently reported acute pulmonary edema in man after a urethral injection of 2 c.c. of the 1-1000 solution. It can, therefore, scarcely be considered a safe remedy in this group of cases.

VALUE IN STOPPING HEMORRHAGE.

Here I shall only consider the value of this drug in hemorrhage from vessels not accessible to local applications, as in the lung or intestinal tract. Adrenalin may check hemorrhage not only through its constrictive action but also by increasing the coagulability of the blood. The latter action can be readily demonstrated after intravenous injection. At first thought it would appear that we have here an ideal hemostatic. Its constrictor action, however, is more than counterbalanced by the sudden increase in pressure. In rabbits I observed that in a wound the vessels that have stopped oozing often start bleeding after an intravenous injection of adrenalin. It is also not an infrequent occurrence to have a canula forced out of the carotid immediately following the use of an intravenous injection. In pulmonary hemorrhage there is the additional danger of possible absence of vasoconstriction, and, therefore, the bleeding might increase by having a condition of dilated vessel with increased pressure. Its action in stopping hemorrhage by increasing the coagulability of the blood may be more safely and effectually induced by calcium chlorid or gelatin, neither of which increases blood pressure. The use of adrenalin in controlling distant hemorrhage should be discouraged, as it probably does harm, as may any substance that increases blood pressure. This has led Smith, Hare,[7] Lemovez and others to advocate vasodilators in controlling distant hemorrhage.

USE IN BRONCHIAL ASTHMA.

The use of adrenalin by subcutaneous injection in controlling asthmatic attacks is of recent date, although applied to the nasal mucous membrane, it has been employed for this purpose for several years. Kaplan[8] has reported very favorably of its action in relieving the asthmatic attack. The dosage is from 5 to 15 minims of the 1-1000 solution subcutaneously or intravenously. During the past year I have used adrenalin in eight cases of bronchial asthma with very satisfactory results. In all these cases marked relief appeared in two or three minutes and continued for three hours. Some of these cases were of long standing and the patients had employed all the ordinary remedies, but, according to their statements, none afforded such prompt and complete relief as adrenalin. From tests with other substances I am quite convinced that the results are due to the specific effect of the drug and not to any suggestive action. In none of my cases could I observe any curative effect; the attack occurred at the usual interval and with the same intensity. One patient during a period of eight months received 100 injections, always with relief, no increase in the dose being necessary. In none of the cases could I observe any untoward results. J. A. Capps, however, in personal communications, reports serious cardiac disturbance in an elderly person immediately after an injection for asthma, and its use here should be restricted to patients with good heart and blood vessels. The action of this drug on asthma may throw some light on the nature of the pathologic process. It is difficult to conceive how adrenalin can relieve a bronchial spasm; one can more readily see how a hyperemia of the bronchial membrane could disappear under its vasoconstrictor action.

USE IN PLEURAL AND PERITONEAL EFFUSIONS.

Barr,[9] in 1903, after withdrawing fluid from the pleural cavity of a patient suffering from carcinoma of the lung, introduced a solution of adrenalin through the canula and was surprised to find that the fluid did not reaccumulate. He then tried it in tuberculous pleurisy, tuberculous and malignant peritonitis and in ascites due to cirrhosis. His method was to withdraw the fluid, then introduce through the canula 5 c.c. of the 1-1000 solution of adrenalin diluted to 15 c.c. with sterile water. After injection into the peritoneal cavity he used light massage to facilitate its distribution. Plant and Steele,[10] following this method, treated three cases of liver cirrhosis and two of pleurisy. Two of the patients with ascites received one treatment, the other one received two, following which the accumulation of the fluid stopped. One patient later relapsed and was again relieved after one injection. The two patients with pleurisy each received one treatment and no reaccumulation occurred.

7. Lancet, Nov. 14, Aug. 20 and Oct. 1, 1904.
8. Medical News, 1905, p. 871.
9. Editorial, THE JOURNAL A. M. A., June 4, 1904.
10. Brit. Med. Jour., July 15, 1905, p. 125.

These cases at the time the report was made had only been under observation a few months, too early to draw conclusions as to the permanency of the result. Barr reports untoward results in one case in which he injected 3 c.c. of a 1-1000 solution into the pericardial sac, after withdrawing 600 c.c. of fluid. The pulse disappeared at the wrist and for a short time the patient's life was in imminent danger. Plant reports colic and a rise in temperature of 2° F. after its intraperitoneal use. Exner,[11] and Meltzer and Auer,[5] working with animals in order to determine the effect of adrenalin in preventing absorption and transudation in the peritoneal cavity, obtained results which lend plausibility to Barr's empirical treatment. Exner, in 1903, demonstrated that the intraperitoneal injection of adrenalin delayed absorption of poison from the peritoneal cavity. He injected into the peritoneal cavity of a rabbit 20 times the fatal dose of strychnin, preceding it by adrenalin, the tetanic convulsions being delayed fifty minutes and were much milder than in the control. Meltzer and Auer confirmed these findings. They also showed that fluorescence transfused from the blood into the peritoneum much more slowly in animals that had previously received adrenalin intravenously. It has also been demonstrated that intraperitoneal injection of adrenalin will lessen the tendency of transudation into the peritoneal cavity after excessive transfusion of normal salt solution.

DANGERS OF ADRENALIN.

The special dangers attending the use of adrenalin besides those already mentioned are rupture of an artery from the sudden increase in pressure, glycosuria and arterial degeneration.

It is a remedy that must be employed with great care in all patients with suspected arterial degeneration. In elderly people, both on account of atheromatous arteries and myocardial changes, it is a dangerous remedy. Kaplan[8] has found that glycosuria does not occur after moderate dosage. He observed on twelve patients the effect of a daily dosage of from 30 to 40 minims continued for two weeks and never detected any glycosuria. Underhill[12] has reported that repeated doses of adrenalin finally fail to produce a glycosuria in rabbits, a certain degree of tolerance being acquired. The danger from this source is very slight and may be overlooked. Much more important is the possibility of causing an arterial atheroma. In rabbits it has been found that a single intravenous injection may cause decided changes in the media and its continued use destruction of the muscle fibers and later calcification. It has, furthermore, been shown that these same changes may be produced by administration of large amounts by mouth or subcutaneously. We must not conclude, however, that its use in man with the usual dosage is necessarily attended with the same danger. We have reasons to believe that the rabbit is especially prone to such changes, as an attempt to produce these in some other animals, as dogs and monkeys, have failed. A variety of substances, some of them well-recognized therapeutic agents, as barium chlorid, physostigmin, lead and digalen, will produce these same changes in rabbits, and further experimentation would probably show that this list can be added to. It is probably true, however, that these changes are more readily brought about by adrenalin than by any other substance employed up to the present time. Again the dosage per kilo, when used subcutaneously, is fifty times our therapeutic dose in man. When we consider that subcutaneously in animals the majority of investigators have never been unable to produce vascular changes, it would appear that the danger of the drug in this respect could easily be overestimated. Its continuous intravenous use should be discouraged. It is not probable that a single intravenous injection would cause vascular changes, although it has been shown that this may occur in rabbits; the real danger attending its use, however, is immediate cardiac disturbance, especially acute dilatation.

11. Arch. f. exper. Path. u. Pharm., 1903, p. 313
12. Amer. Jour. Phys., xvii, p. 42.

OCCUPATION IN THE TREATMENT OF THE INSANE.*

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It will not be possible for me to consider this subject at length, but I wish to urge persistent effort in devising ways and means to find employment of a suitable kind for the insane. I do not pretend to add anything of importance to what others have said on this topic, and it is not unlikely that any one will object to my according a great deal of importance to occupation as a remedial measure for the insane, but I hope that I may be able to direct attention more strongly to the desirability of prescribing this valuable remedy in a more systematic manner.

Some authorities say that great care should be taken to assign patients to labor similar in character to that which they are accustomed to perform. Surely this is not wisdom. A patient comes from the counting house fairly saturated with the toxemia of figures. He has spent his days—and often, it may be, a considerable portion of his nights—in struggling with great and perplexing problems, as a result of which there is a failure of his physical health and a more or less complete shattering of his nervous system. To ask such a patient to perform any sedentary duties would be but adding fuel to the fire already consuming his nervous vitality.

Better far to start this patient at some occupation requiring little or no mental exertion. Send him out in the open air where he will be surrounded by conditions favorable to health, and give him a hoe, a spade, or a rake, and see that he is kept in motion. Do not attempt to explain what he is expected to accomplish. The great majority of patients will attempt to use any utensil of this kind as soon as it is placed in their hands. They appear to work automatically, little or no mental exertion being required. The power of observation appears to be aroused and developed, slowly it may be, but steadily. A simple hole is perhaps made in the soil and the patient proceeds either to enlarge this opening or fill it in or build a mound. He will continue this occupation, apparently forgetful of his delusions, for a time, but suddenly the abnormal ideas return and any attempt at occupation ceases. Here is where the properly trained attendant is able to render valuable assistance. He has, or should have, a good knowledge of the temperament of his patient and can, by tact and patience, encourage him to recommence his work. It was a revelation to me to notice the progress made by patients from day to day. At the outset perhaps a few minutes would represent the time spent in work, but this time is gradually extended until a patient may continue his occupation for an hour or longer,

*Read before the British Medical Association, Toronto.

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apparently unconscious of his surroundings and forgetful of his delusions. Of course, even after the patient has made progress and understands the nature of the work in which he is engaged, and why he is asked to perform it, he may become obstinate and refuse to do more. In such an event no force should be used. Allow him to remain indoors or to spend his time with the walking parties, etc., for days, if necessary, and await confidently the time when he not only consents to accompany the working parties, but expresses a desire to do so.

I might cite a number of cases to explain more fully what I desire to express, but time will not permit. This case, however, will interest you.

A young man, in the prime of life, was sent to the hospital for treatment. He was the most perfect specimen of physical development that I have ever seen. He was brought in on a mattress to which he was firmly bound. This patient had occupied a position of great financial responsibility, and filled with an energetic young man's determination to master all the details of his work he spent day after day and many a night at his desk. His domestic environments were such that he was denied rest even when he tried to obtain it, and he never thought of recreation. His general health became impaired, followed by a complete mental breakdown. After his admission he would destroy his bedding, clothing and everything he could lay his hands on. He went on all fours and fancied he was a ferocious animal in a cage, and sniffed and snapped at everyone. He continued in this way for some time with little if any improvement, although his condition varied somewhat from time to time. Spring came, however, and instead of looking for some occupation befitting his condition in life, he was provided with a spade and sent out with the working gang. He was dull and stupid and seemed to move about mechanically. He soon began, however, to use the utensils supplied him and in less than a week I was surprised and delighted when he asked me to sit with him under the shade of a tree, as he had something to say to me. For the first time since he came to the hospital, more than three months previous, he appeared to realize that something was wrong and asked for an explanation, but the mental cloud was yet too dense to make him understand. I had previously ascertained that this patient had a hobby for gardening in his spare time, and it would appear that even in his afflicted condition enough of his old inclination remained to induce him to persist in his work. He made a good recovery and subsequently resumed his former occupation.

This case has impressed me with the necessity of studying the temperament of a patient before selecting his occupation and of endeavoring to obtain as much information as possible regarding the previous history, not forgetting the whims and fancies.

I will cite one more case to point out the danger in allowing a too great time to elapse before placing a patient at work.

A male patient, aged 30 years, was admitted suffering from acute mania. He fancied he was charged with electricity and was alarmed lest he might unintentionally injure his friends. He was very irritable, attacked the other inmates, and was considered a dangerous patient. He became a great nuisance on the ward and was sent out under the care of an experienced attendant, who, with nine other patients, were engaged in grading. He commenced to improve at once, forgot his delusions, and ceased to provoke trouble while indoors. In a short time he was discharged and has been well for almost two years. I am convinced that this patient's restoration to health could not be so completely and quickly effected in any other way.

The percentage of patients who are not likely to derive benefit from occupation of some kind is very small, indeed. If we exclude those cases who are physically unfit and those who are in the advanced stages of dementia, the proportion who are unable to perform work of any kind almost disappears. A considerable number of patients with acute mania are, during the early stages of the disease, unable to perform any labor, but this period of enforced idleness may be very much shortened if careful and systematic efforts are made to ascertain the earliest possible time when simple occupation may be attempted. Paretics, too, during the period of exaltation, are not capable of undertaking work of any kind, but it is not unusual to find them able to perform considerable work later on in the disease. Some patients who have dementia præcox also absolutely refuse to do anything, no matter how persistent our efforts may be.

Occupation should be simple at the outset. It does not require much mental effort on the part of any patient to push a heavy brush up and down the corridor on the polished floors, and this effort is much less when the patient is only one of a large number moving up and down in the form of a procession. It is little more than an exercise in walking, while it serves as a stepping stone to something more complicated. This simple occupation is continued longer than the condition of the floor requires, the principal object being to endeavor to direct our patients along the line that leads to something better. A change to outdoor exercise is made just as soon as the patient is reported as being able to perform the simpler indoor labor with very little direction from the attendant in charge. It is true that patients vary much in the time necessary to reach what I may call an "outdoor stage," but the great majority are sure to advance this far.

While I think it is unwise to restrict any class of patients to any particular work, nevertheless it is true that certain patients can not be induced to perform any work other than that to which they are accustomed. I have in my mind the case of a tailor who was exceedingly dull and sluggish, refused to eat or speak and could be only moved from place to place with difficulty. It was useless to attempt to force him to brush or to do anything else, yet when a needle and thread and a piece of cloth was placed in his hands his interest appeared to be aroused and he made some attempt to ply his trade. This led to better things, and later on he was sent to the tailor shop where he proved to be a skillful workman. Another matter that should never be forgotten is that certain classes of patients should never be asked to perform the more menial services that must always be rendered in every hospital. In matters of this kind the same judgment should be exercised in selecting certain persons to fill certain positions as is used in the world at large.

Friends of patients often object to the rule in force to induce every person who is physically able to engage in some occupation, and this objection comes from the poor as well as from the rich. It is assumed by many that the poor are asked to labor in order to defray the expenses in connection with their maintenance. Others assure us that certain patients are under no obligation to labor, as their friends are willing to pay for all they receive. It takes a little time and patience to point out to persons making these objections that occupation is a remedial measure and that it must be administered in accordance with the requirements of the patients and under the direction of those who are in charge of the asylum. The time occupied in making such explanations is well spent, however, and later on we will find that the number of persons objecting gradually diminishes. Even now the general public is so impressed with the importance of occupation that complaint is often made when visitors come and find their friends, who, for some reason, may be in the ward, unoccupied.

Once the facts that occupation is an important remedy

in the treatment of insanity and that it must be administered in an intelligent and systematic manner, are firmly impressed on the minds of the attendants, little difficulty is found to keep patients employed. Patients who, previous to their arrival at the asylum, belonged to the indolent class and who were never obliged to perform any labor, may consider it a hardship to do so, but they are soon influenced by their surroundings and learn to fall in line and perform such duties as may be assigned to them. The fact that they are not asked or permitted to overwork themselves and that attendants are expected to make their outdoor life as cheerful as possible, robs labor of much that is disagreeable in their minds. Even persons belonging to this class are glad to be permitted to participate in the advantages to be derived from occupation.

My experience has taught me also that it is unwise to offer any pecuniary reward for services rendered by a patient. If this plan is permitted, patients are encouraged to think that they are employed for the benefit of the institution and not for their own good. It also encourages jealousy and serves to engender a general feeling of dissatisfaction and unrest that is not at all conducive to the physical or mental improvement of the patient. A full day's pay is impossible and a lesser amount is unsatisfactory. Better far to eliminate this feature altogether and to encourage the feeling that occupation is the best and most easily administered remedy known to us at the present time.

How does occupation effect a cure? This is not an easy question to answer. Delusions may be nothing more than mental expressions of physical disease. At all events we know that in a large number of cases mental improvement is coincident with the return of physical health. As a result of suitable outdoor employment, we find that patients are less restless, sleep better, their appetites are improved and the secretions become normal. The gentle perspiration helps to eliminate the excess of toxic products and the muscular exercise tends to tire the patient sufficiently to induce quiet sleep. While in the wards, too, they become less noisy, less quarrelsome, less destructive and much better behaved generally. One thing is certain, that the coated tongue, the obstinate constipation, the diminished secretions, the sallow complexion and the other symptoms of ill health that very stubbornly resist other methods of treatment gradually disappear when patients are engaged in suitable occupation, and we can nearly always look forward with confidence for a marked improvement in the mental condition.

While I have no objection in stating that the cure of a large number of patients may be attributed to occupation, I am also of the opinion that the greatest good is conferred on the incurable cases by delaying dementia and by adding to the comfort, happiness and general well-being of the chronic insane.

The fact that the employment of patients materially lessens the cost of their maintenance and saves the expenditure of hundreds of dollars annually in the carrying on of the various industries in connection with an asylum for the insane is, of course, a matter of some importance. But when we attempt to consider what the restoration of a patient's health may mean to his family who may be dependent on him for support, or when we try to estimate the value of the happiness that lights up the home when a loved one returns, whose departure has enveloped his own fireside in the shadows of sorrow and desolation and left behind him the fearful dread that he may never recover when we consider all this we must forget such matters as finance and carry on our various works with the sole object of improving the mental condition of our patients. Our annual reports contain elaborate statements in detail of the handiwork of our patients. We report from 50 to 75 per cent. as having been employed and the total number of days labor is very large, indeed. I am inclined to believe that these figures are not always accurately compiled, yet they go to show that a great deal of labor is being performed by patients in the different institutions. But this in itself is not everything. We should endeavor to carry on our work in such a way that every manufactured article will represent in some measure an improvement in the mental condition of a patient, and not a single piece of work of any kind should be placed to the credit of any institution if its performance interferes, in any way, with the recovery of a patient.

Much that I have said in this paper applies to amusements and entertainments which I look on as important aids to be employed in connection with occupation.

SUMMARY.

1. Only a small proportion of our patients should be exempt from labor.

2. A careful study should be made of the temperament of each patient before deciding the kind of labor suitable in each case, and the previous occupation or social condition should not be the only determining factor.

3. The carrying on of this work successfully depends in a large measure on the attendants in charge. Attendants should be selected with care and carefully instructed.

4. Members of the medical staff should visit the working parties regularly for the purpose of studying individual cases.

5. Patients should never receive wages. It is possible that such a system may appear to work successfully in some cases, but in the end it is sure to create trouble.

6. In some cases it is advisable to encourage patients to learn a trade, so that they may the more easily earn their living after their discharge.

7. Agricultural pursuits and caring for grounds appear to be ideal labor for the great majority of patients.

8. Female patients may with advantage be employed in the vegetable and fruit garden, weeding, picking berries, etc., in addition to the work performed in the day rooms, dormitories and dining rooms. They should also perform fancy work, do all the mending, and assist in the industrial department in the making of mats, mattresses, etc.

TUBERCULIN TEST.*

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Eight years ago, in a paper on the "Early Diagnosis of Pulmonary Tuberculosis," I made the statement that the tuberculin test had been accepted for testing cattle, but that this procedure would be slow in becoming popular with our profession as a means of confirming or rejecting our suspicions in the human being. It was compared to hunting for a gas leak with a lighted candle.

Having used tuberculin, in its various forms, since it was first brought out, I am more convinced to-day than ever that in tuberculin we have our most efficient remedy in fighting this disease.

*Read before the Buncombe County (N. C.) Medical Society, Feb. 18, 1907.

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Experience has convinced me more firmly than ever that its use under proper precautions and with a full appreciation as to its limits and results is justifiable and advisable; while this is true, I am just as firmly convinced that my old comparison of "hunting the gas leak with a lighted candle" is still applicable, but with this addition, experience has shown how better to guard the light. So powerful an agent can be safely used only when the utmost caution is exercised and the indications for its use are given the consideration and attention which they demand.

Ten years ago those of our profession who advocated and used tuberculin were few and far between; during the first years of its use (as has been the history of all our greatest medical discoveries) the remedy was abused at the hands of those who employed it in half-moribund patients and in cases in which it should never have been used either as a diagnostic measure or in treatment. To-day we find a majority of the progressive members of our profession using the remedy at least as a diagnostic measure. Those who a few years ago were loudest in their denunciations have now become non-committal. Ten years more will without doubt convert those who are skeptical to-day.

A tuberculin test will frequently clear up the diagnosis in cases in which, without the remedy, the true nature of the disease would otherwise remain obscure until the disease had become more advanced and valuable time had been lost.

REACTION TO THE TEST, PROOF OF THE PRESENCE OF TUBERCULOSIS.

The fact that animals and human beings will react when no evidence whatever of a tuberculous disease exists (otherwise than found by a tuberculin test) does not prove that a reaction can or does occur without the disease. It is well known that a small local tuberculosis may be present in any organ of the body without the patient or physician being aware of its existence. It has been claimed that a reaction will occasionally occur in uncomplicated syphilis. The more we become acquainted with tuberculin and its action the more certain do we become that we have been lame in our diagnosis, that our powers of discernment and judgment have been at fault, and that a reaction means tuberculosis, no matter whether we find the deposit or not.

Veterinarians have been able to satisfy themselves on this point more quickly than we have, from their ability to get a postmortem immediately following the reaction if desirable. Were it possible that we also could secure an autopsy in all cases and dissect the body as carefully and in the same detail as does the veterinarian, we should undoubtedly find evidence sufficient to convince us that the occurrence of reaction to tuberculin means tuberculosis.

The majority of tuberculous foci starting in the human body probably never produce an open tuberculosis. A reaction, when such shut-in tuberculosis exists, will occasionally produce sufficient local manifestation (throat, pulmonary, articular or glandular) so that the diseased area may be determined accurately during the reaction.

Experience shows that the more recent case will give a stronger reaction to a given dose than will a case of longer standing; further, the more recent case will react to a much more minute dose than will a case more advanced.

IN WHAT CASES SHOULD THE TUBERCULIN TEST BE EMPLOYED.

In pulmonary work we are constantly finding patients presenting absolutely no symptoms of tuberculosis except a hacking cough, associated with bronchial inspiration, and perhaps prolonged expiration or slight dulness on percussion; the temperature, sputum, history, weight, etc., all fail to aid us in our diagnosis. What are we to do ? Wait, as we would do in syphilis, until more positive signs appear? No, it may then be too late or the patient may not return. A tuberculin test, properly given, under such conditions is of the utmost value to both patient and physician.

A sputum examination giving negative results in itself, unless repeatedly made, is not an indication for tuberculin. All other means of arriving at a correct diagnosis should be employed before resorting to a tuberculin test; not that I believe this test is dangerous or that it ever aggravates the disease, but the depression of the reaction fever, nausea and other concomitant symptoms are not desirable in any one, and particularly is this true in a patient suffering from tuberculosis. The claim made a few years ago by various observers that a reaction excited a latent deposit or developed a quiescent disease into an active one has not been proved by facts and experience.

In joint troubles, bone disease, persistent wasting without pulmonary symptoms, chronic pleurisy, bladder trouble, and especially in adenitis, is tuberculin most valuable as a diagnostic measure. It is rarely necessary or advisable to use the tuberculin test in cases running a daily maximum temperature of over 100 F. I have never used the test in a suspected case of brain tuberculosis.

WHAT TUBERCULIN SHOULD BE USED.

After trying several makes and modifications, I have found that the tuberculin made by Koch and imported through Victor Koechl & Co., New York, is the most satisfactory and is apparently more nearly "standardized" than any other.

ADMINISTRATION.

The temperature of the patient should be taken once in three or four hours for a period of several days before giving the first injection. As a rule, I have not used the test in patients having maximum temperature over 100 F. Different observers advise dosage ranging from one to six milligrams, some giving the tuberculin in slowly increasing amounts over a period of a week or more, others going to the opposite extreme both in amount used and in the number of injections.

While I would not advise the use of the maximum dose as a test measure, I believe that the slowly increasing method of administration is faulty, in that many individuals quickly acquire more or less tolerance and fail to react (even in the space of a week or ten days) as they would had a larger amount been given earlier.

In the average adult I use 2 mg. at the first injection, preferably giving it late in the evening, continuing the temperature record for two days; if no reaction occurs, 5 mg. is then given on the third day. This plan, in my experience, avoids excessive dosage and obviates the possibility of developed tolerance. The injections are given with a graduated syringe in the subscapular region, the needle being inserted into the deep fascia, but not into muscle tissue.

The tuberculin is diluted with a 0.5 per cent. solution of carbolic acid and distilled, filtered and sterilized

water; little local discomfort results, such hyperemia as follows subsiding in from twenty-four to forty-eight hours.

WHAT CONSTITUTES A REACTION.

A tuberculin reaction may be either local or general. If local, the symptoms may be confined to a small area and consist of congestion, swelling, pain, tenderness on pressure, or increased secretion. Local reactions, as a rule, are not clearly defined; they occur particularly in adenitis and in disease of the joints and of the larynx; it is not infrequent that increased moisture will be heard over a suspected area in the lung without other change in the character of the respiratory sounds. In a general reaction the symptoms may be slight or so severe as to give rise to grave apprehensions on the part of the patient or the friends. The symptoms usually occur in from twelve to twenty-four hours and consist of fever, pain throughout the body (particularly the back and joints), nausea, vomiting, headache, increased cough and expectoration, restlessness, chill, or the ordinary evidence of a common cold. Many of these symptoms may be entirely lacking, others existing either slightly or to a severe degree. The most distinctive evidence of reaction is usually presented in the change of temperature, a variation from one to even three or four degrees from the record for the previous days being taken as a positive evidence, other possible causes, of course, being eliminated.

The reaction may be retarded, not coming on until the second day, then appearing suddenly and presenting the most conclusive evidence. Even when the reaction is violent the maximum is reached in a few hours, the symptoms then subsiding gradually, so that in twenty-four hours from the outset the patient is again practically normal. I have occasionally had my attention called by the test to the larynx, where, beforehand, no suspicion of trouble existed, the reaction causing slight or marked local redness with such symptoms as occur in ordinary acute laryngitis. Slight chill, a rise of two to three degrees in temperature and more or less aching is the rule, nausea being less frequent and vomiting rarely seen.

ALL TUBERCULOUS PATIENTS WILL NOT REACT TO THE ORDINARY TEST DOSE.

As has already been pointed out, a recent case, or one presenting but a small or circumscribed deposit, will react more positively than will the usual well-developed case or one in which there is extensive involvement. In other words, in the advanced or extensively involved case, a certain degree of tolerance is established to tuberculin, an evidence that Nature produces in the body the same resistive element (call it partial immunity, if you like) that occurs when tuberculin is used in gradually increasing dosage.

WHAT PRODUCES THE REACTION.

With all that has been written, following innumerable experiments on lower animals, after the most painstaking laboratory experiments, as yet there is no satisfactory explanation for the phenomena of the tuberculin test. Empirically we know the results as we do with many remedies; scientifically we are in the dark here as we are with the "how and why" of the action of many of our simplest and commonest remedies.

In conclusion, I wish to affirm my belief in the efficacy, safety and positive diagnostic value of a properly conducted tuberculin test, and to state that, while a failure to react is not proof positive that the disease does not exist, a clearly defined reaction must be accepted as diagnostic proof of the existence of tuberculosis.

Special Article

WATER SUPPLY AND PUBLIC HEALTH.

CHAPTER I.

WATER AND DISEASE.*

The causal connection between water and disease has been impressed on the human race by a series of tragic occurrences. Throughout the Middle Ages a common explanation of any sudden outbreak of epidemic disease was that "somebody had poisoned the wells," and this unhappy hypothesis often led to a destruction of life which was even greater than that caused by the original epidemic. The belief that certain outbursts of a specific disease were somehow associated with drinking water did not, however, become general until about the middle of the nineteenth century, when a number of facts hitherto seen through a glass, darkly, first came into clear view in connection with the causation of Asiatic cholera.

(*a*) *Asiatic Cholera.*—This disease afforded an early and conspicuous demonstration of the relation between a specific disease and the use of a given water supply. The famous case of the "Broad Street Pump" in London in 1854 has long been celebrated as an epidemiologic classic.[1] It will be recalled that a remarkably concentrated and explosive outburst of cholera occurred among the persons who used the water from a certain well in Broad Street. The circumstances surrounding this outbreak were such as to foster immediately the suspicion, even in those prebacteriologic days, that the well water contained the "specific poison" of Asiatic cholera. Fortunately for the advance of preventive medicine, the investigation of the occurrence fell to the lot of several shrewd and competent observers, who succeeded in securing convincing evidence, amounting, indeed, to virtual proof, of the causal connection between the use of the water and the production of infection. It is with much reason that some writers date the beginning of modern epidemiology from the inquiry into the Broad Street pump epidemic of Asiatic cholera.

In more recent times the connection between drinking water and Asiatic cholera has been graphically shown in the famous Hamburg-Altona epidemic of 1892-3. Here similar population groups in the two cities, living under identical climatic and social conditions, were most diversely affected. The residents of Hamburg were supplied with unfiltered water from the River Elbe and suffered severely, while the inhabitants of Altona, who were supplied with filtered water from the same source, remained almost entirely exempt. Topographically and industrially the two communities were under identical conditions; the character of the water supply alone determined the presence or absence of infection. In those districts in which the Hamburg water mains passed across the boundary line for a short distance into Altona a tongue of cholera-infected houses projecting into Altona betrayed the presence of the infected water.

(*b*) *Typhoid Fever.*—The evidence connecting epidemics of typhoid fever with drinking water is intrinsically more difficult

*[This is the first of a series of articles on the relation of water supply to the public health. Succeeding papers will treat of kindred topics, such as the methods of sanitary water analysis, the methods of water purification and similar themes. Many of the existing treatises on water and water supply have been written, primarily, for the engineering rather than for the medical profession, and it has seemed to us desirable to secure a presentation of this subject that shall be of especial value to medical readers. In most communities, physicians rather than engineers constitute the membership of the local board of health, and it is to the former, consequently, that the public must look for proper guidance in the matter of safe water supply. As a matter of fact, the water-supply problem is often of a hygienic rather than of an engineering character.—ED.]

1. Sixth Report of the River Pollution Commission. Appendix 10, p. 499. An excellent detailed review of this outbreak is given in "Principles of Sanitary Science and the Public Health," by W. T. Sedgwick. The Macmillan Co., 1902.

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to secure than in the case of cholera, owing to the long period of incubation and the frequently obscure symptoms of the former disease. Nevertheless, an overwhelming number of cases is on record in which the association between the use of a particular drinking water and an outbreak of typhoid fever is so direct as to admit of no doubt as to the causal relationship.

There is no need to recapitulate here in detail the features of the more familiar water-borne epidemics of typhoid fever. These are for the most part on file in easily accessible publications. Among the classic epidemics may be mentioned the one at Lausen, Switzerland, in 1872;[2] at Plymouth, Pa., in 1885;[3] at Worthing, Eng., in 1893;[4] at Ithaca, N. Y., in 1903,[5] and at Butler, Pa., in 1903.[6]

In addition to the evidence afforded by these epidemics of a circumscribed and definite character, there is a large body of evidence, less direct to be sure, but very cogent, derived from a study of the typhoid fever death rates in those cities afflicted with more or less polluted public water supplies. Attention has often been directed to the low typhoid fever rate in cities supplied with a surface water purified by sand filtration, as compared with the higher death rate in cities furnished with unfiltered surface water.

TABLE 1.

Cities Using Sand Filtered Surface Waters.—Typhoid Rate per 10,000.		Cities Using Unfiltered Surface Waters.—Typhoid Rate per 10,000.	
Berlin	0.50	Boston	2.79
London	1.40	New York	1.81
Hamburg	0.90	Baltimore	4.50
Rotterdam	0.20	St. Louis	4.70

Table 2 shows the death rate from typhoid fever in the principal cities of two large states. In one of these states the public water supplies were under the direct legal control of the State Board of Health; in the other such authoritative supervision was lacking.

TABLE 2.—Average Typhoid Fever Death Rates. (1898, 1899 and 1900.—Fuller.)

PENNSYLVANIA.		MASSACHUSETTS.	
CITY.	DEATH RATE.	CITY.	DEATH RATE.
Pittsburg	108	Boston	30
Allegheny	86	New Bedford	30
Johnstown	83	Springfield	26
York	83	Lawrence	25
Chester	64	Taunton	25
Lancaster	59	Brockton	24
Philadelphia	54	Chelsea	24
McKeesport	53	Salem	23
Reading	50	Fitchburg	21
Allentown	49	Lowell	21
Harrisburg	41	Lynn	20
Altoona	33	Newton	20
Wilkesbarre	29	Cambridge	18
Erie	28	Worcester	18
Scranton	23	Fall River	15

An immediate and striking effect on the typhoid fever death rate has often been observed when a city has exchanged a polluted water supply for one of more satisfactory character. Thus the city of Vienna between 1851 and 1874 procured its public water supply from the River Danube, and during this period the typhoid rate ranged from 100 to 340. In the latter year a pure spring water was introduced and the typhoid rate at once became and has since remained consistently low, averaging only 5.1 in the years 1898-1902. In Chicago the typhoid fever death rate fell to the lowest point recorded in the history of the city in the year (1900) immediately following the opening of the Chicago drainage canal, which diverted a large portion of the city sewage away from Lake Michigan, the source of the city water supply.[7]

A singularly instructive condition existed at one time in the city of Paris. The main water supply was obtained then as now from various springs and small rivers and was of fairly satisfactory character, but during certain seasons this source proved inadequate, and the scanty supply was eked out with water from the polluted River Seine. In order that every part of the city should share alike, each *arrondissement* was supplied in turn with river water, due notice being given through the public press to the residents of the district concerned. That the authorities clearly recognized the situation is shown by fact that if the river water was supplied for more than twenty days of the year the householder had the right to demand a reduction in his water rates (Legge). The effect of the orderly distribution of the Seine water was manifested by a miniature epidemic of typhoid fever which followed the course of the Seine water from one section of the city to another. In 1889 an accident occurred to the conduit of the Vanne, one of the chief sources of the spring water supply, and all Paris received nothing but river water for five days. It is estimated that this caused 1,570 cases of typhoid fever.

(c) *Other Diseases.*—In addition to Asiatic cholera and typhoid fever a number of other diseases have been attributed with more or less reason to water-borne infection. Conspicuous among these is the so-called epidemic diarrhea. Various well-defined outbreaks of intestinal disturbance have been traced not infrequently to the use of polluted water. An interesting outbreak of a dysenteric affection ascribed to the use of well water has been reported by Lartigau.[8] This case is a particularly important one since the micro-organism apparently responsible for the infection (*B. pyocyaneus*), was isolated both from the discharges of the patients and from the contaminated well water.

The most extensive epidemic of this order yet described is one recently recorded by Thresh,[9] which occurred in the borough of Chelmsford, Eng., attacking about 1,400 persons, mostly adults, and causing 14 deaths. The practical limitation of the cases to definite sections of the population first threw suspicion on a certain portion of the water supply. The original sources of supply apparently were not exposed to pollution, but a small uncovered reservoir was found into which water from a deep well had been pumped and through which it flowed to mix with water from a spring in a large covered reservoir. The conditions surrounding the small reservoir are thus described: "This small reservoir was not bricked above ground level, hence during heavy rain water from the ground around would run into it. Adjoining one end of this reservoir was a patch of garden ground on which flowers were being grown. This I found was manured from time to time with road scrapings." The intimate connection between the onset of the epidemic and a particularly excessive rainfall was shown by the fact that the epidemic commenced between July 23 and 25, while the rainfall records show that after three rainless weeks 0.56 inches of rain fell on July 17, 0.45 on July 19, and no less than 2.1 on July 23. Table 3 sets forth the relation subsisting between the use of the contaminated water and the deaths from diarrhea.

TABLE 3.—Deaths from Diarrhea during Epidemic.

5,000 persons not using contaminated water	0
7,700 persons using the contaminated water	14
23,000 persons in the remainder of the union not using the contaminated water	0

Less convincing than such well-marked outbreaks are the instances that have been reported in which water-borne epidemics of typhoid fever have been preceded by a large number of cases of diarrhea. This circumstance has been regarded by some observers as indicating that the ingestion of polluted water causes in some persons a diarrheal disease with a short period of incubation and in others genuine typhoid fever. A critical re-examination of the evidence, however, is needed in most of these cases, especially since the bacteriologic data are strikingly incomplete. It is sometimes alleged, further, in communities in which typhoid fever has been rife, as in the cities of Chicago and Philadelphia, that cases of apparently non-specific diarrhea have been notably more common than in cities supplied with purer water. The so-called attacks of "winter cholera" should perhaps be placed in this category.

The degree to which infantile diarrhea can be rightly ascribed to the use of infected water must be considered an open question. Some facts, such as those recorded Reinke,[10] len l

2. Hügler: Deuts. Arch. f. klin. Med., 1873, 11, p. 237.
3. First Ann. Rep., State Board of Health and Vital Statistics of Pennsylvania, 1886.
4. Thomson, Ann. Rept. Med. Officer, Local Gov't Board, 1893-4, p. 47.
5. The JOURNAL A. M. A., March 21, 28, Apr. 4, 1903.
6. The JOURNAL A. M. A., Dec. 12, 1903; Eng. News, Dec. 21, 1903; Twentieth Ann. Rept. of Penn. State Board of Health.
7. The JOURNAL A. M. A., Dec. 20, 1902.
8. Jour. Exp. Med., 1898, 3, p. 595.
9. British Med Jour., Sept. 26, 1903.
10. Bericht über die medicinische Statistik d. Hamburgisch, Staaten für 1822.

color to the supposition that infection sometimes comes by this channel. The danger must be recognized as a real one, although the relative frequency of water infection under ordinary conditions of infant nourishment has not yet been definitely ascertained.

Both the bacillary and the amebic forms of dysentery are ordinarily water-borne infections. Although the two infections are etiologically and otherwise distinct, the sources of infection and the modes of transmission are probably very similar. In both cases the infectious elements are contained in the feces of the patient or convalescent, and the entrance of the bowel discharges into drinking water must constitute the most important mode of dissemination, precisely as in Asiatic cholera.

The somewhat rare affection known as Weil's disease or infectious jaundice has also been definitely traced to the use of polluted water.[11] The organism (*B. proteus fluorescens*) concerned in the causation of this disease is discharged from the body of the sick in the urine and feces,[12] and the same prophylactic methods, therefore, are necessary as in typhoid fever.

Anthrax in animals sometimes has been traced to the use of highly contaminated water, notably in a case reported by Diatroptoff.[13] River water may receive anthrax spores through the drainage from tanneries and the like, and when such infected water overflows meadow lands the spores may be deposited and taken up subsequently by grazing cattle. No instance appears to have been recorded of water-borne infection in man.

The opinion has often been expressed, especially by physicians in malarious regions, that water derived from marshy districts is the cause of malaria, but there is no real evidence that this is the case. Experimenters who have drunk water taken from swamps in malarial localities have experienced no ill effects, and even the swallowing of small quantities of blood derived from malarial fever patients and known to contain the specific parasite has not produced the disease. Furthermore, the demonstrated dependence of malaria on the bite of certain mosquitoes places the hypothesis of malarial water infection in the region of unverified myth.

It seems quite unlikely also that water ever serves as the vehicle of infection in yellow fever. In this disease, as in malaria, the transfer from man to the mosquito and back again to man seems to be the only means of propagation.

In the case of the bubonic plague it is very doubtful whether water plays any rôle in the transmission of the disease. The German Plague Commission was unable to discover evidence of any authentic case of alimentary tract infection in man, and, although perhaps the possibility of water infection can not be altogether excluded, this mode of conveyance must be so infrequent as to have little practical importance.

Infection with various animal parasites may sometimes result from the contamination of drinking water, especially in tropical countries. It is stated that the occurrence of the hydatid stage of *Tænia echinococcus* in man is usually due to the swallowing of the ova present in polluted water. The tapeworm form of this parasite inhabits the intestine of the dog and human infection is said to be common in countries where dogs abound, as in Australia and Iceland. Infection with *Ascaris lumbricoides* is also usually attributed to drinking water. The ova of this worm may pass directly from the intestine into sewage, and if such sewage enters a water supply a possible cycle of infection is clear. Other parasites, infection with which is attributed with more or less reason to water conveyance, are *Bilharzia hematobia, Ankylostomum duodenale, Trichocephalus hominis and Filaria mediensis.*

CHAPTER II.

SOURCES OF INFECTION.

The most common way in which water becomes infected is through admixture with sewage. The infectious elements or disease germs in sewage sometimes may be derived from street washings or from factory waste, but in the great majority of cases they enter the sewage directly together with the discharges from the human bladder or intestine. This is notoriously the case with the bacteria of typhoid fever and Asiatic cholera, diseases which are by far the most common as they are the most serious of the water-borne infections.

In Asiatic cholera, it is well known that the specific germ leaves the human body in the intestinal dicharges in which it is often present in large numbers. It has been shown also that the dejecta in mild and apparently simple cases of diarrhea, occurring in times when cholera is prevalent, may contain myriads of cholera spirilla, and that at such periods, moreover, cholera spirilla have even been found in the intestinal contents of perfectly well and healthy persons. It follows that such persons, migrating from a cholera infected district, although remaining healthy themselves, may be the means of scattering the seeds of infection. Any condition, therefore, chance or otherwise, that allows sewage to mingle with water used for drinking purposes may be the means of originating an outbreak. Those communities into whose water supply sewage enters are, hence, in greater or less peril at all times when cholera is rife in the surrounding region.

The sources of infection in typhoid fever are similar to those in cholera with the addition that the liability of carriage by mild or unrecognized cases is present in even greater degree. The evidence both from epidemiology and bacteriology indicates that the typhoid bacillus remains in the human body longer after convalescence than does the cholera spirillum. This is particularly true as regards its persistence in the urine. The investigations of the last few years have shown that in from 25 to 30 per cent of all cases of typhoid fever the urine contains typhoid bacilli. They are sometimes found here in enormous numbers, and may range as high as 500,000,000 per cubic centimeter (Horton-Smith). Examinations occasionally reveal their presence far into convalescence, and it is possible that in rare instances the urine of the patient may remain infectious for years after complete recovery. The broad epidemiologic importance of this fact has only recently become fully recognized. The evacuations of urine are more frequent and copious than the discharges from the bowels, are more highly infectious, and may remain infectious for a longer period. On the supposition that the urine of typhoid fever patients and convalescents may contain the specific bacillus, apparently mysterious cases of isolated infection and even obscure epidemic outbreaks become susceptible of plausible explanation. At least one instance is on record[14] where a well water apparently became contaminated from urine alone, since typhoid bacilli were found in the water without any admixture with colon bacilli, and this would hardly have been the case had any accompanying fecal contamination occurred. The relative facility with which infection may result from the urine of a case of walking typhoid or of a convalescent renders this source of evil a particularly insidious one, and one against which special precautions will doubtless soon be taken more generally both by health authorities and by physicians in private practice. The well-known fact that urine can be freed at least temporarily from typhoid bacilli by the administration of hexamethylenamine to the patient has been taken general advantage of, but other methods of disinfecting the urine after passage (e. g. with carbolic acid or mercuric chlorid) should not be neglected, especially in view of the fact that the bacilli may reappear in the urine when the hexamethylenamine is discontinued.

Perhaps the most common source of water-borne anthrax infection is the entrance into water of anthrax spores discharged in the drainage from tanneries. The spores may become detached in the process of cleansing hides imported from anthrax infected localities. Infection of well water with spores derived from the bodies of dead or diseased animals may also conceivably occur.

In considering the pollution of large bodies of water such as lakes or rivers, it has been customary to lay great stress on urban as opposed to rural sources. Thus, emphasis is often placed on the urban or sewered population on a watershed to the relative neglect of the dwellers in rural districts. There can be no doubt that so far as the amount of organic matter entering a river is concerned, the urban population is vastly

11. Jäger, Zeits. f. Hyg., 1892, 12, p. 525.
12. Conradi and Vogt, Zeit. f. Hyg., 1901, 37, p. 283.
13. Ann. Past., 1893, 7, p 286.

14. Kübler and Neufeld, Zeitsch. f. Hyg., 1899, 31, p. 133.

more significant than the rural, but the question of infection is on a different footing. Many scattered farmhouses are provided with outhouses or privies which adjoin, or perhaps overhang small tributaries of the main stream. Disease germs may be introduced from this source, and owing to the relative neglect of disinfection in country districts, this may occur more readily than in urban communities. It may be noted that some of the greatest epidemics of typhoid fever have been caused by infection from rural sources; Plymouth, Ithaca and Butler are familiar examples. There is evidence, further, that typhoid bacilli introduced into water together with abundant organic matter, as in sewage, perish more quickly than when introduced into relatively pure water. From this standpoint also rural infection can hardly be regarded as a negligible quantity.

CHAPTER III.

INJURY OF WATER SUPPLY BY ALGÆ AND RELATED ORGANISMS.

In certain regions and at certain seasons of year the appearance of disagreeable odors and tastes in drinking water is not an infrequent occurrence. These odors are particularly likely to develop in reservoir or storage basin waters, the affected waters often becoming so disgusting as to preclude their use on the table. It is usually popularly assumed that such odors or tastes are due to the active decomposition of matters of animal origin or even that the nauseous qualities are due to the admixture of sewage with the water. The presence of these odors consequently causes serious concern among water drinkers, but such concern, however, is not altogether justified. The malodorous or unappetizing emanations, which are quite various in character and are often picturesquely described by terms such as "fishy," are as a matter of fact due to the products of growth, or sometimes to the products of decomposition of microscopic algæ. These products, at any rate in the proportion in which they are found in natural waters, are not known to have any prejudicial effect on human life and health. The practical seriousness of the trouble, however, is shown by the fact that some supplies, representing large investments, have been rendered almost valueless by becoming infested with algæ. In other cases large expenditures have been found necessary to remedy the evil.

The organisms commonly found producing these odors belong to several distinct groups. Some of them are diatoms, some of them *Cyanophyceæ* (blue-green algæ) and some of them are infusoria. Among the diatoms *Asterionella* has been the genus most frequently associated with the occurrence of unpleasant odors. When this diatom is present in small numbers the odor has been described as aromatic, resembling the odor and taste of the geranium, but when it occurs in very large numbers it imparts a distinctly disagreeable, fishy odor to the water. *Asterionella* frequently multiplies in great abundance in pure ground waters which have been stored in reservoirs and which, owing to their nitrate content, and their exposure to light and air, afford a highly favorable medium for the development of diatoms. In some cities, e. g. Brookline and Newton, Mass., it has been found necessary to prevent the growth of this diatom by roofing over the storage reservoir and so excluding the light that is necessary for growth. Some other diatoms, such as *Tabellaria* and *Meridion*, are found to produce disagreeable odors in public water supplies, but *Asterionella* surpasses other organisms of this class both in the frequency of its occurrence and the offensiveness of its products. These odors arising from the presence of great numbers of diatoms are due to the products of growth of the living micro-organism and not to the products of decomposition. It has been well established that these products of growth are due to oily compounds (essential oils) secreted or excreted during the healthy metabolic activity of the organism.

Among the blue-green algæ (*Cyanophyceæ*) several species have been found implicated in the production of disagreeable odors. By far the most troublesome of these is the genus *Anabæna*, the natural odor of which is described as "mouldy" or "grassy," but which when the process of decomposition sets in evolves an extremely offensive stench, almost universally described as suggestive of the pigpen. This "pigpen" odor is produced by the decay of highly nitrogenous organic compounds, containing sulphur or phosphorus, of such compounds in fact as those which usually produce the evil smells proceeding from the decomposition of organic matter. Many hygienically excellent and otherwise highly desirable water supplies have been seriously injured by becoming infested with *Anabæna*. Other blue-green algæ which produce nearly or quite as offensive an odor are *Clathrocystis*, *Rivularia*, *Coelosphaerium* and *Aphanizomenon*, although they are not found so commonly as *Anabæna* in public water supplies.

Among the grass-green algæ (*Chlorophyceæ*) the general *Volvox*, *Eudorina* and *Pandorina* have been found associated with the production of more or less pronounced "fishy" odors, which, as in the case of the diatoms, are due to the qualities of the essential oils formed during the normal growth of the organism.

In the group of infusoria, *Uroglena* and *Synura* have proved specially objectionable as inhabitants of water supplies. A number of important public supplies have been rendered practically unfit for use through the presence of *Uroglena*. Middletown and Meriden, Connecticut, and Norwood and Plymouth, Massachusetts, are among the places where the organism has caused much trouble. The disintegration of the organism during its passage through the water pipes is often responsible for the liberation of the odoriferous materials. The water taken from pond or reservoir may swarm with colonies of *Uroglena* and yet emit no disagreeable odor, while the tap water drawn from supply pipes may be highly offensive. The odor produced by this organism is hence not really one of decomposition, although of an intensely offensive character. Other odors of growth have suggested to various observers the odors of ripe cucumbers, rockweed, Irish moss, salt marsh, and even in the case of infusorium (*Cryptomonas*) candied violets!

There is no reason for supposing that the odors and tastes due to the presence of large numbers of any of these microscopic organisms are in any degree dangerous to health; this is doubtless true whether the odor be caused by the products of growth or by those of decomposition. The proportion in which these substances occur in the natural waters in question is so small as to preclude any physiologic effect. In the actual operation of water works, however, the impairment of the esthetic value of water by these micro-organisms has often led to considerable expense, and has sometimes placed practically insuperable obstacles in the way of securing a supply that is both palatable and hygienically suitable.

Another micro-organism that is related only rather remotely to the algæ and infusoria just under consideration, but which has frequently caused much inconvenience in the conduct of water works is the so-called iron fungus or *Crenothrix*. This organism is one of the largest of the higher bacteria and, among other peculiarities, is characterized especially by the deposits of oxid of iron in the sheaths of the filament. The growth of this organism on the sides of the pipes and conduits of various public water works in widely separated localities has caused much annoyance. The rapid multiplication of this plant may suffice to cover entirely the walls of a reservoir or drain pipe with a thick felt, portions of which are dislodged at frequent intervals and swept along by the current as small, dark brown flocculent masses. As these appear in the tap water they are extremely unsightly. Decomposition of these particles may occur and produce offensive odors. Small pipes may become entirely clogged by the growth. The famous "water calamity" of Berlin in 1878 was the first occasion on which the production of trouble was definitely laid at the door of this organism. Other municipal supplies have since been attacked by *Crenothrix*, notably that of the city of Rotterdam, Holland, where the *Crenothrix* invasion was thoroughly investigated by the distinguished botanist, DeVries. At Rotterdam, the operation of a well-conducted sand-filtration plant has been grievously interfered with by the growth of this organism, which indeed is said still to cause trouble in spite of all efforts at its eradication. The cities of Lille, France, Rome, Italy; and some places in this country (e. g. Wayland, Mass., and Fairport, Ill.), have also suffered from the development of *Crenothrix* in pipes or reservoirs.

(To be continued.)

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Clinical Notes

THE PREVALENCE AMONG SCHOOL CHILDREN OF DISEASES OF THE EAR AND THROAT.*

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A review of the following tabulated results of an ear and throat examination made in one of our largest preparatory schools brings to light some points of practical interest. The examination was systematically carried out, and, as gross defects alone were looked for and recorded, the tables show only such conditions as were undoubtedly harmful to the boys from the standpoint both of physical health and scholastic efficiency. The figures underestimate rather than exaggerate the amount of disease present. It may, perhaps, be said that the number of boys examined is too small to be of great statistical value; nevertheless the figures do give some idea of the relative prevalence of diseases of the ear and throat among school boys of the better class in whom it ought hardly be expected to find any harmful disease that prophylaxis can prevent or medical science cure.

TABLE SHOWING RESULTS OF AN EXAMINATION OF SCHOOL CHILDREN OF THE BETTER CLASS.

	39 examined 8 to 10 years of age, per cent.	91 examined 11 to 13 years of age, per cent.	117 examined 14 to 16 years of age, per cent.	50 examined 7 to 19 years of age, per cent.	297 total examined, per cent.
EARS.					
Normal	64.10	57.14	53.84	52.00	55.87
Deafness, slight, in one or both ears	10.25	20.87	27.34	26.00	22.88
In both ears	2.56	10.98	6.83	12.00	8.41
Deafness, marked in one or both ears	7.68	6.58	10.25	6.00	9.09
In both ears	2.56	2.19	0.00	6.00	2.02
History of purulent discharge	15.38	14.28	8.54	4.00	10.43
Impacted ear wax	10.25	5.49	2.56	2.00	4.37
NOSE AND THROAT.					
Enlarged tonsils, including adenoids	28.20	18.12	10.25	8.00	14.98
History of removal of tonsils	8.97	1.09	2.98	1.00	2.85
Abrasion septum (nose bleed	0.00	3.29	2.56	2.00	2.35
Chronic catarrh of nose	17.97	2.19	4.27	0.00	4.75
Obstructive lesions of nose	3.84	3.23	5.55	1.00	3.87
Hay fever	0.00	0.00	0.00	8.00	1.34
Chronic pharyngitis	5.12	9.89	11.96	6.00	9.42

Looking over the table in detail we find only 55.87 per cent. of these boys had approximately normal ears. The older boys were freer from ear disease than the younger ones, the explanation of which is found in the lower table, which shows a lessening of nose and throat affections as the boys outgrew childhood diseases and tonsillar enlargements—the most frequent causes of ear troubles.

Noticeable deafness for the voice, in one or both ears, occurred in an average of 9.09 per cent. of the boys, a high percentage in view of the handicap such deafness places on a student in his mental development. Impairment of hearing in one or both ears that was readily detected by simple tests was found in 22.88 per cent. of the boys. Impairment of hearing increases progressively up to the fourteenth and sixteenth year, after which it decreases somewhat. This decrease can be explained by the reasons already given above, namely, that they have passed the age when diseases of childhood and tonsillar hypertrophy are prevalent. A sufficient percentage of deafness continues into the older years to prove that an "outgrowing" of deafness can not always be counted on.

The percentage of children giving a history of purulent discharge from the ear also becomes smaller as they grow older. It may safely be assumed that the older boys are freer from purulent middle ear disease. For althought a larger percentage was affected when they were younger, later on they had forgotten about it, while the younger boys remembered the ear discharge because of its comparatively more recent occurrence. Hearing is not often seriously affected by purulent discharge from the ear, the chief danger lying in the possible extension of the purulent process to the brain.

The filling of one or both ears with ear wax was noted in 4.37 per cent. The percentage of pupils affected was larger in the young and became less as they grew older.

Cases of enlarged faucial and pharyngeal tonsils, the chief causes of mouth breathing and deafness in children, decreases at puberty, but disappearance of the tonsils does not invariably take place. The number of boys giving a history of removal of the tonsils lessens as they grow older, firstly, because many have forgotten about the operation performed in the past, and, secondly, because operation for adenoids and tonsils was not so frequently resorted to formerly as at present.

Examination of the nasal fossae of boys between seventeen and nineteen was not as carefully made as in the other children, a thorough examination entailing too much time and trouble; otherwise it is probable that a higher percentage of defect would be recorded under chronic catarrh of the nose and nasal obstructive lesions in the columns for those ages.

Four out of fifty boys between the ages of seventeen and nineteen gave a history of "hay fever." Perhaps other boys suffered from this affection, but had not yet recognized it in its incipiency.

In concluding we are justified in stating that a surprisingly large number of school children suffer from defective ears and throat, and that, therefore, all school children should be subjected to a thorough examination at least once a year. Many of these children are incapable of gleaning the full benefit of their school training because they are retarded in their progress on account of these defects and consequently require a greater amount of attention from their teachers, which is given at the expense of the other boys.

Therefore, it seems that it would be highly beneficial from a standpoint of prophylaxis to require a certificate of examination on a child's admission to the first primary grade, for that is the time when most good can be done in a prophylactic way by removing obstructive adenoids and hypertrophied tonsils. The examination should be made by a capable physician or medical inspector, with itemized reference to nose, throat and ear as well as the rest of the body. If defects were found, although the examiner might not be able to refuse the child admission to the school in case the parents refused the necessary means of correction, he could at least strongly advise treatment and send in with the child a certificate calling attention to each child's individual defect. These children could then be separated from the others for careful observation and frequent examination. If the child, receiving no attention at home, develops a severe attack of earache the teacher could explain to the parents the cause of the condition and perhaps gain their consent to the removal of the offending adenoids and tonsils. In this way the chances of serious middle

*Read before the Philadelphia County Medical Society, March 13, 1907.

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ear disease with its many complications and sequelæ will be lessened and something will have been done toward lowering the very high percentages recorded in our tables.

AMYOTROPHIC LATERAL SCLEROSIS.

CLINICAL REPORT OF A CASE.

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If for no other reason, I would appear to be justified in reporting a case of this extremely rare nervous disease, when the statement is made that this case was diagnosed as locomotor ataxia by as many as five physicians, some of whom reside in various parts of the United States.

Patient.—J. K., white, married, aged 50, traveling salesman for Ferris wheels and merry-go-rounds, was examined Jan. 19 and 20, 1905. He has two children in good health, and has lost none. In the past ten years he has made seven trips to the tropics (Porto Rico, Cuba, Philippines, etc.), averaging about seven to eight months in each year in a tropical climate.

Family History.—Negative. Mother living, aged 87. Father died of chronic bronchitis at 69. One grandparent died from an accident, one died at 85, one at 82 and one at 65. No history of tuberculosis or nervous diseases in the family.

Personal History.—At the age of 15 he had a severe attack of pneumonia, and at 20 was critically ill with typhoid fever. Denies syphilis; no evidence of any specific infection. From the age of 20 to 49 he had not been confined to bed on account of illness. Injuries: In 1887, while lifting a very heavy log, the bolt in the cant-hook broke and his body was suddenly elevated, causing severe pain in the small of the back, which has continued to some extent up to the time of this examination—a period of eighteen years. Patient remarked that since this accident he noticed that "in lifting any moderately heavy weight, the muscles on the right side of the spine" (in lower dorsal and lumbar regions) "would swell up and get very firm, and the small of the back would feel sore for three or four days." He sometimes lived at a "pretty swift pace," drinking heavily; at other times drank nothing for weeks. Sexual habits usually moderate.

Present Illness.—In the early part of October, 1903 (at the age of 49), patient first noticed a little twitching of parts of the muscles of the right leg from hip to knee, and about three weeks later fibrillary twitchings of muscles of the left arm appeared. Three or four months after this came the fibrillary twitchings of the muscles of the left leg from hip to knee, and several weeks later the twitchings appeared in the muscles on either side of the spine and in the intercostals. A short time after the twitchings began, patient noticed more or less weakness of the muscles affected, and in the case of the arms, intercostals and muscles of the back, atrophy began to appear. With weakness of the intercostals, he noticed that his "lungs would not fill up as readily as formerly." He says that up to date of examination there has been very little twitching of the muscles of the legs below the knees, and careful examination failed to elicit any fibrillary movements of the calf muscles.

Patient's Condition Jan. 20, 1905.—A man of large frame, who had weighed a year or more previously 235 pounds, now shows at a glance some atrophy of the intercostals and of muscles of the back, neck, shoulders, upper arms and forearms, with wrist-drop on each side, the left being more marked than the right. There is also some shrinkage of the muscles of the buttocks and hips, and an apparent hypertrophy of the muscles of the thighs and legs, the contrast between the atrophy of the muscles of the arms, forearms and hands and the normal or slightly hypertrophied condition of the muscles of the thighs and legs being quite marked. There is a peculiar hoarseness of the voice and some fibrillary tremor of the tongue. He is unable to whistle. Fibrillary twitchings of the muscles of the arms, neck and thighs are noticeable at times. Spasticity of the legs is prominent. He is able to walk with assistance, the gait being markedly spastic.

Physical Examination.—This shows the heart normal. Some shortness of breath is present. Pulse 78, temperature 99. Bladder and bowel functions normal, sphincters all intact, and sensory conditions normal. Electric reactions: The left arm shows slight reaction to faradism in the deltoid, biceps and triceps; no response in extensors, but some in flexors of forearm; little or no response to galvanism, except a tetanic contraction in the deltoid. Right leg: All thigh muscles appear to respond to faradism; the thigh muscles showed marked A. C. C. to galvanism. The calf and other muscles of the right leg below the knee show some response to faradism. Left leg: Practically the same electric reactions as those of the right, but response is somewhat weaker. Eyes: Pupils, vision, fields of vision, and muscular movements normal. Ears: No deformities. Hearing normal in both ears; senses of smell and taste normal; memory good; logical powers good. Emotions: Extremely emotional at times, laughing and crying. Very anxious to get well, but if he must die, insists that he can not and must not be allowed to suffer. Sleep: Awakens about every two hours, when he becomes restless and irritable, desiring to be removed from bed to a chair and back again in a short time. Reflexes: Jaw jerk exaggerated. Elbow jerk exaggerated. Knee jerks very markedly exaggerated. Ankle clonus present on left side; not elicitable on right side because of former injury to right ankle joint (fixed joint). Babinski present in both feet. Wrist jerks absent, owing to extreme atrophy of extensor muscles of the forearms. Cremasteric present. Abdominal present.

As time advanced the condition grew progressively worse. The trapezius and other muscles of the neck grew weaker and weaker until he was unable to hold his head erect, a special pillow being arranged to support the head. The voice became so feeble that it was scarcely audible. Fibrillary tremors were often noticeable without tapping the muscles involved. Swallowing and respiration became extremely difficult. Finally pulmonary edema developed, causing death on July 21, 1905, the actual duration of the disease being twenty-two months. An autopsy was urgently requested, but was declined.

This would appear to be a typical case of amyotrophic lateral sclerosis. This disease is defined by Starr as a chronic form of spinal paralysis characterized by the symptoms of progressive muscular atrophy in the arms and of lateral sclerosis or spastic paraplegia in the legs. Oppenheim states that in typical cases bulbar paralysis occurs. All of these symptoms were present in this case.

ETIOLOGY.

Little is known of the causation of this disease. In this case we have perhaps two possible factors in the etiology, namely, prolonged exposure to heat in the tropics and the sudden wrenching of the spinal muscles eighteen years previous to the first symptoms. Examination of the spine failed to show any curvature or other injury, and I am led to the conclusion that this very remote accident was probably not the exciting cause of this condition. Whether prolonged exposure to tropical heat was a predominating factor in the etiology of this case, I am at present unable to determine.

AGE OF ONSET.

This case began at the age of 49 years, which is not an unusual age of onset. Collins, who has made an interesting study of nearly all the cases of record, found that of 100 unselected cases 29 occurred between 45 and 50, 30 between 30 and 40, 28 between 50 and 60, and only 2 under 30. McPhedran's case began at 47. Gor-

don reports a case in a boy of 15 with a history of acute anterior poliomyelitis in infancy.

DURATION OF THE DISEASE.

My case lasted 22 months, which is probably about the average length of this disease. Collins reaches the conclusion that the average duration is about two years. A few of the recorded cases lasted from six to nine months. A very small number lasted four to five years, while one case extended over a period of ten years. McPhedran believes most cases terminate in one year, but the case reported by him lasted two years.

A NEW METHOD OF OPERATING FOR ANO-RECTAL FISTULA.

PRESERVING THE CONTOUR OF THE ANUS AND THE FUNCTIONS OF THE SPHINCTER MUSCLES.

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I have learned from practical experience that much can be done to preserve the functions of the anal sphincters by operating as follows: The patient having

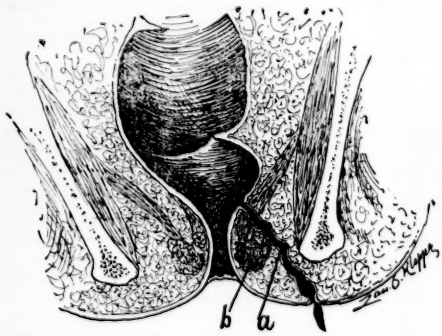

Fig. 1.—Diagrammatic: *a*, complete fistula; *b*, tissues between fistula and anal canal.

been prepared in the usual manner, the fistula (Fig. 1) is injected, when deemed necessary, with a solution of methylene blue (methylthionin hydrochlorid, U. S. P.) or other coloring materials to aid in searching out the course of the tract or tracts. All of the fistulous tracts external to the sphincter are then divided. A probe-pointed director is then passed into the bowel through the remaining tract and an incision is made on its distal side. This incision should extend far enough distally to divide all or a part of the fibers of the external sphincter and in such a direction as to locate the transferred internal opening at or near the anal margin (Figs. 2 and 3). Then, turning the knife, make an incision—Salmon's "back cut"—on the proximal side of the tract. A seton is then passed through the opening entering the bowel and tied loosely around the tissues remaining and undivided (Figs. 2 and 3).

The wound is dressed as after the ordinary incision operation for fistula. At the end of twenty-four to thirty-six hours the wound is redressed, care being taken to dress it so that the opening entering the bowel will be made to heal from the proximal toward the distal side. The object in doing this is to advance the final fistulous tract as far distally (toward the skin) as the case will permit, so that, if possible, it will pass through or distally to the fibers of the external sphincter, when the healing process is complete.

As a rule the enlarged tract entering the bowel soon closes, with the exception of that part through which the seton passes. As soon as this has occurred the seton may be removed, and by the time the external wound is healed the tract entering the bowel will possibly have closed also. Should it not, at any time later this little tract, which will usually not be more than 1 inch in

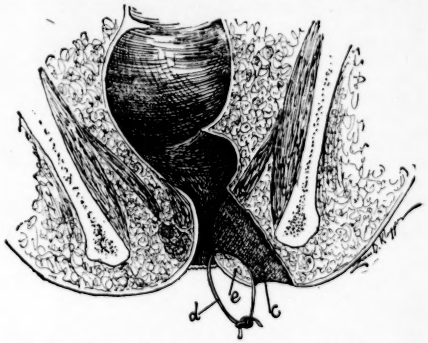

Fig. 2.—Diagrammatic: *c*, scope of incision on distal (toward the skin) side of the fistula; *e*, tissues remaining and undivided; *d*, the seton passed around them and tied.

length, may be dissected out and the remaining fibers of the muscle sewed together, thus preserving the contour of the anus and the functions of the sphincters.

By operating in this manner no deep sulcus is left to mutilate the anus as there frequently is following the usual incision method of dividing the muscle. Instead of this the contour of the anus is preserved. Should the seton be left *in situ* until the wound is completely healed a small non-secreting fistula will be seen entering the

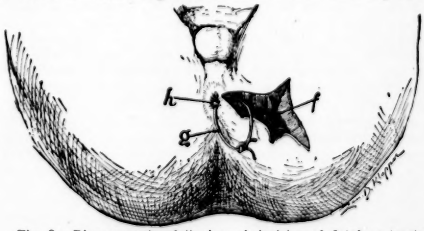

Fig. 3.—Diagrammatic: full view: *f*, incision of fistulous tracts external to sphincter; *g*, seton passed through the opening into anal canal and out through anus, *h*.

anal canal. This may be left alone or dissected out and sewed together at will. Sometimes this opening will give no annoyance and finally close without further interference.

Should the remaining tissues in this case be simply divided without dissecting out the tract and sewing them together, mutilation of the contour of the anus and loss of control to a certain extent would most likely follow. In such a case the entire epidermis-lined tract should

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be dissected out and the ends of the muscle united. This may be done either under local or general anesthesia. It is best performed, however, under the latter.

The question might arise: What is the use of the seton? Would it not be just as well, or even better, not to use it? No; for by using it the opening into the bowel is transformed and transferred at the pleasure of the operator and the incision through its use made to heal from the proximal toward the distal side, or, in other words, with it you can direct and greatly control the healing process and the location of the final fistulous tract.

It might be objected theoretically that there would be constant reinfection from the setonized fistulous tract which would be inimical to the healing. Practical experience has not found this to be true. Besides, the tract is washed out daily with an antiseptic solution.

It is the consensus of opinion that the large majority of cases of incontinence following operations for fistula could be avoided if the external sphincter were cut squarely across and the ends sutured together or the postoperative treatment so directed that the ends of the muscle would be slightly separated by the cicatrix. The seton method provides for this procedure.

The anus not being divided aids the healing of the external wound and prevents much of the contraction and atrophy usually observed after these operations.

By operating in this manner we simply have an external wound with which to contend. The anus is not disturbed to any great extent, and in some cases not at all, and the patient is usually up and around in a few days. Moreover, the bowel movements do not soil the wound.

Finally, I have found that the employment of this method of operating greatly aids in preserving the contour of the anus and the functions of the sphincter muscles in operating on many cases of anorectal fistula.

THE BICYCLE PUMP IN INTUSSUSCEPTION.

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Surgeon to St. Vincent's Hospital.
TOMPKINSVILLE, N. Y.

History.—Baby X., aged 13 months, was reported by his mother on the afternoon of Nov. 10, 1907, as having vomited several times during the day and being unable to retain anything in his stomach. I directed her, by telephone, to give the child calomel gr. 1/10 every twenty minutes. At 7 p. m. the mother asked me to see the child, as he was no better. No other than his usual food had been given him, and this had previously agreed with him, as evidenced by his weight, 32½ pounds. He had had one small bowel movement in the morning; prior to this his bowels had been regular.

Examination.—I could detect nothing to account for his symptoms. His temperature was normal, there was no tenderness over the abdomen, and but for the frequent vomiting his condition seemed good. Between the attacks of vomiting he was bright, though peevish, and wanted to be carried, which for him was unusual. I directed that the calomel be continued. On the following morning his temperature was 101.6 F., the vomiting had continued and his bowels had not moved. There was still no abdominal tenderness.

Treatment.—Calomel gr. ¼ was ordered every two hours until four doses had been given. As this produced no effect, the same dose was given every hour until one more grain had been taken. At 3 a. m. the child had one very small bowel movement. On the morning of November 12 there was no further movement. The temperature was 99.6 F. Saline enemas, one pint with the addition of an ounce of glycerin, were ordered every three hours. At 11 p. m. Mrs. X. called me up and asked me to come to the house, as the baby's bowels had not moved, and she was worried about him. When I arrived he still seemed in good condition, but kept his mouth open in a peculiar way, as though he was nauseated, and every few seconds yawned. It was this open mouth and yawning that worried the family. The enemas having produced no result, I had, at 7 p. m., ordered the addition of ox gall to every enema. The abdomen being very soft and free from tenderness, I performed massage, and directed that the enemas be continued, but in larger quantities.

By the morning of November 13 there was still no movement. Child retained albumin water, but was given only a teaspoonful at a time. Vomited occasionally. A mass, which the mother could also plainly feel, was made out in the right iliac fossa, a little below the appendix. Only slightly tender, but pressure produced gurgling. I advised consultation, and Dr. L. E. La Fetra was asked to come over. He arranged to be at the house at 4 p. m. At 1 o'clock I again saw the child. The mass, if anything, was larger, and was now very tender, the slightest touch causing the child to cry. Feeling now certain, of what for the past twenty-four hours I had suspected, that I had a case of intussusception to deal with, I took a bellows, attached to it a catheter, and introducing the latter into the rectum, attempted to inflate the intestines sufficiently to replace the telescoped gut. The bellows worked badly, and my efforts were unsuccessful. One of the boys in the family having a bicycle pump, I substituted this for the bellows. I had the father manipulate the pump slowly and carefully, while I kept up percussion over the abdomen. When I considered that sufficient air had been introduced, I withdrew the catheter, and directed Mrs. X. to wait a half hour and then give an enema. When I returned at 4 o'clock to meet Dr. La Fetra, Mrs. X. informed me that just after the enema the child had had a small fecal movement, and an hour after another. Dr. La Fetra examined the child, but finding no mass asked me to point it out. I attempted to do so, when I was surprised to find that it had entirely disappeared. There was no possible doubt that it was there before the pump was used, as not only I, but the mother, distinctly felt it; and I not only felt it, but distinctly mapped it out. Between 1 and 4 o'clock there had been a wonderful improvement in the child. There was but one conclusion to reach, and in this Dr. La Fetra said he thoroughly concurred, that it was a case of commencing intussusception, and the air driven in by the pump had forced the invaginated gut back to its normal position. That night the child had a large bowel movement, and from then on continued steadily to improve. There was no return of the trouble, and he has since been perfectly well.

54 Richmond Road.

A CASE OF VOLKMANN'S PARALYSIS AND CONTRACTURE.

FRANCES N. BOYNTON, M.D.
NEW HAVEN, CONN.

In view of the recent publication of an article[1] on Volkmann's paralysis and contracture, giving a history of the literature of the subject and a tabulation of cases, it was thought that the following case, which, through the kindness of Dr. E. H. Arnold, I am permitted to report, might prove of interest.

Patient.—A. L., girl, aged 5½, was brought to Dr. Arnold, March 1, 1901, with the left hand and wrist paralyzed and contracted.

History.—Family history and personal history up to time of accident, five months previous, were negative. On Nov. 10, 1900, patient fractured left humerus just above elbow joint. The fracture was reduced and the arm splinted and bandaged. It was not especially painful, but the hand soon puffed up, assumed a wax-like pallor and the fingers began to contract. The attending physician brought another in consultation and

1. Powers (Charles A.): Ischaemic Paralysis and Contracture of Volkmann, THE JOURNAL A. M. A., March 2, 1907, p. 759.

the bandages were loosened, but not removed for some time. The exact time of removal of splints was not remembered by the mother, but the attending physician told her it was sooner than usual. At this time sloughing was found to have taken place on the anterior aspect of the forearm. The wrist and fingers were flexed and absolutely powerless.

Examination.—March 1, 1901, five months after the accident, the conditions were as follows: On the anterior aspect of the left forearm, slightly to the radial side and about two inches below the bend of the elbow, was a scar an inch in diameter. The flexor muscles were short, hard and adherent, the lower part atrophied, changing the contour of the arm. The fingers were flexed on the hand and the hand on the forearm. There was little power of voluntary movement and even passive extension was impossible.

Diagnosis.—Ischemic contracture.

Treatment.—Previous to this examination there had been some treatment by forcible stretching, but without effect on the contracture. Heat and massage, electricity and passive movements were now advised by Dr. Arnold and after some delay these measures were instituted. Good effect was soon apparent in lessening of the contracture and improved usefulness of the hand, but owing to temporary removal of the patient to another town there have been long intervals in the treatment. Since January, 1907, treatment has been pushed vigorously, and, although six years have elapsed since the injury to the muscle, improvement is noticeable. The treatment now consists of dry hot air, followed by cupping over the scar; effleurage, frictions, pétrissage and vibrations of the muscles; passive stretching and active movements with special apparatus. The muscle-bellies are becoming softer and less board-like, the lower forearm is rounding out, and the power of extension is increasing. It is still impossible to extend simultaneously wrist and fingers, but the wrist can be extended with fingers only moderately flexed at the terminal joint, and the hand is nearly, if not quite, as useful as its mate. This case is clearly one of Volkmann's paralysis and contracture, i. e., ischemic paralysis due to the pressure of too tight dressings.

In view of the great improvement already noted it would seem that an early institution and vigorous prosecution of appropriate non-operative treatment might have cured the deformity as well as restoring the functional ability. Indeed, even at this late day there is some hope of such a result. Of the cases tabulated by Powers 31 had non-operative treatment. Of these 4 are described as completely recovered, 1 as almost recovered, 6 as having good functional results with deformity, 12 as manifesting slight improvement and 8 as being unaffected by treatment. The case herewith reported falls at present in the third class of good functional results with some deformity. The latter has, however, been so much reduced that it may yet present complete recovery.

A NEW URETHROSCOPE TO BE USED WITH THE AID OF WATER DISTENSION.

GEORGE WALKER, M.D.
Associate in Surgery, Johns Hopkins University.
BALTIMORE.

The accompanying cut represents a urethroscope based on the broad principles of the cystoscope, but so modified as to enable one to get a lateral view of the urethra and not that of the collapsed wall which we ordinarily see. At first I employed the ordinary tubes in which a window had been cut immediately opposite the prism, but this proving unsatisfactory, it occurred to me to distend the urethra with water and to discard the tube entirely. I then devised the metal cap to be fitted into the meatus. Water distension has proved to be very advantageous and superior in many ways to the tube.

DESCRIPTION OF INSTRUMENT.[1]

The urethroscope is No. 15 French; its full length is 20 cm. (8 in.); its length from the outer lens to the prism is 17.5 cm. (7 in.); it focuses at ⅛ inch, at which distance the amplification is 3 diameters. The prism is made after the modern double convex pattern. The lamp is turned around so as to be placed very near the prism, but separated from it in such a way that the setting of the prism does not get too hot. The connection with the cord is made by means of two metal rods, the adjustment at this point being such that a slight turn makes or breaks the connection. The instrument passes through a metal cap which is made so as to fit into the meatus; this piece has a second opening, which is provided with a cock into which a syringe fits and which can be opened or closed by means of the point of the syringe. The syringe is made of metal and holds 6 drams.

MODE OF USING.

The instrument is inserted into the urethra and the middle cap slipped down and fitted into the meatus. The glans is then pulled up so as to make the meatus watertight. The syringe having been filled with water, the point is adjusted into the cap and the urethra is distended. The amount of water to be injected is regulated by the degree of distension as felt by the finger on the outside of the urethra; as a rule 3 or 4 drams are required. The connection is now made and the lamp illuminated. In order to get the proper focus the lower

end of the urethroscope is pressed against the wall of the urethra opposite to the point which is to be inspected. The metal cap is held together with the glans in the left hand and the telescope pulled up and down and rotated so that the whole urethra is passed under inspection. No pain is experienced, no cocain is necessary and all adult meatuses will admit the instrument easily.

This urethroscope can be used without the metal cap, in which case the urethra is distended with water and the meatus held closed by the fingers; after having been well lubricated with glycerin and a drop of glycerin having been poured on the meatus, the instrument can be slipped in without the escape of any water.

In view of the clear delineation of the blood vessels of the urethral wall and of the glands and follicles I believe that after one is accustomed to it and is able to interpret the pictures it will be found far superior to the urethroscope now in use.

1. When I presented my idea for the construction of a urethroscope to Mr. R. Wappler of New York I found that he had a small straight cystoscope similar to the one above described. I can not, therefore, claim originality in the cystoscopic part of my instrument. I wish to thank him for his valuable assistance.

Tuberculosis of the Uterus.—Reginald H. Lucy, Plymouth, England, asserts that tuberculosis of the uterus is more common than is suspected. He believes that as microscopic evidence accumulates it will be found that many ulcerations of the cervix, hitherto considered malignant, will prove to be tuberculous.—*Jour. Obst. and Gyn. of Brit. Emp.*

A NEW GRAPHIC URINE CHART

FOR THE URINE FINDINGS IN DIABETES MELLITUS.

FRANK SMITHIES, M.D.
Instructor in Internal Medicine, University of Michigan.
ANN ARBOR, MICH.

[From the Medical Clinic of the University Hospital.]

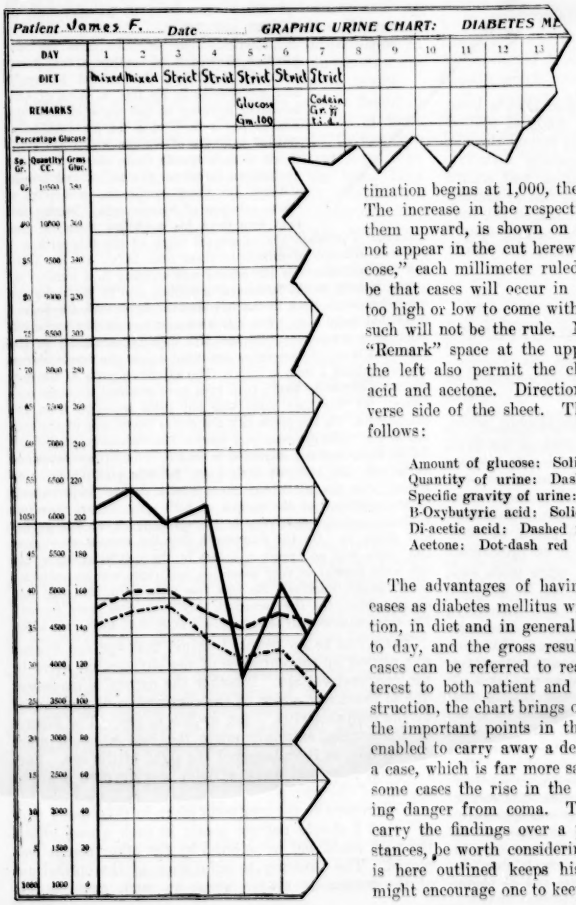
The chart here reproduced was designed (1) to facilitate the keeping of a concise record of the urine findings in diabetes mellitus; (2) to show the effects of treatment, by diet and medication, on the amount and character of the urine; (3) to show by curves the relation of the various urine findings to each other, and (4) to enable students to better appreciate the progress of the disease in respect to the urine and to perceive the modifying factors more readily.

The chart has been made as simple as possible for the number of facts it embraces. A glance will show the general arrangement. It is printed on millimeter ruled paper. The sheets are of convenient size for filing in patients' histories. Appropriate headings permit the sheets to follow the course of the disease in a given patient over an extended period.

Roughly, the chart may be divided into two parts: (*a*) An upper section for clinical observations, and (*b*) a lower part for the purely laboratory work, the results in this part being expressed by curves.

(*a*) Arrangement is made to tabulate changes occurring over a period of four weeks, as expressed by the numbers heading the vertical columns; the words "Diet" and "Remarks," respectively, begin horizontal columns, in which variations in food, the administration of glucose for test purposes, or medication given, may be noted each day, and the effects watched; a fourth series of daily spaces permits the entering of the daily percentage of glucose eliminated.

(b) For convenience in reading and in entering findings, this space is divided by horizontal lines into four smaller sections. Vertically, the day columns are continued. To the left are columns, headed, respectively, "Specific Gravity," "Quantity" (of urine passed in twenty-four hours) in c.c. "Grams Glucose," and below the headings are the figures applying thereto. They read from below upward. It will be seen that the specific gravity estimation begins at 1,000, the quantity of urine passed, at 1,000 c.c. The increase in the respective columns of figures, as one follows them upward, is shown on the chart by fine blue lines, which do not appear in the cut herewith. For instance, under "Grams Glucose," each millimeter ruled in blue represents 4 grams. It may be that cases will occur in which the quantitative estimations are too high or low to come within the limits allowed on this chart, but such will not be the rule. Note may be made on such days in the "Remark" space at the upper part of the chart. The figures at the left also permit the charting of B-oxybutyric acid, diacetic acid and acetone. Directions for charting are printed on the reverse side of the sheet. The different findings are designated as follows:



Amount of glucose: Solid black line ————————
Quantity of urine: Dashed black line — — — — — —
Specific gravity of urine: Dot-dash black line —.—.—.—.—
B-Oxybutyric acid: Solid red line ————————
Di-acetic acid: Dashed red line — — — — — — —
Acetone: Dot-dash red line —.—.—.—.—.—.—.—

The advantages of having charted urine findings in such diseases as diabetes mellitus will readily be seen. Changes in medication, in diet and in general management can be watched from day to day, and the gross results over a long period compared. The cases can be referred to readily, and frequently facts of great interest to both patient and physician noted. For purposes of instruction, the chart brings out more forcibly than any other method the important points in the course of the disease. Students are enabled to carry away a definite mental picture of the progress of a case, which is far more satisfactory than an array of figures. In some cases the rise in the acid curves might foretell the impending danger from coma. The economic value of having one sheet carry the findings over a period of four weeks may, in some instances, be worth considering. In private practice such a chart as is here outlined keeps histories from becoming bulky—in fact, might encourage one to keep closer watch of these chronic cases.

TONSIL SNARE.

EDWARD C. SEWALL, M.D.
SAN FRANCISCO.

The use of the snare with a cold steel wire for the removal of the tonsil requires an instrument simple in construction and strong in all parts. The instrument here shown covers, I think, these requisites.

No provision is made for the re-use of the same wire because the snare can be so quickly threaded and a loop once used loses its best form. The general shape and mechanism is that of snares that are well known to be satisfactory. The parts have been adapted to the uses to which it is to be put. The canula is strong and has a button on the end to prevent its splitting. The screw for the attachment of the wire is set firmly into a strong

piece of steel; over this fits a button and then a loose washer. Both button and washer are made of chilled steel and milled so that by means of the strong thumb-screw the wire can be secured and quickly fastened. Most snares fail to provide for the quick and secure fastening of the wire, it often being made fast by clumsy and slow twisting. When the loop has engaged the tonsil the wire is drawn taut and then the cutting slowly accomplished by the windlass. This crushes the vessels and makes bleeding less to be feared.

CHRYSOPHANIC ACID KERATO-CONJUNCTIVITIS.

CHARLES J. KIPP, M.D.
NEWARK, N. J.

The fact that chrysophanic acid or chrysarobin, when applied in the form of a salve to any part of the face and even to other parts of the body, will give rise in some individuals to a conjunctivitis of greater or less severity is known to dermatologists and is mentioned in many text-books on diseases of the skin. Recently this drug seems to have come into favor again, at least I have been told by apothecaries that it is prescribed more frequently now than for several years past, and this is one reason which has induced me to put the following case on record:

Patient.—N. C. L., aged 63, in good health, of temperate habits, a clerk by occupation, came to me on May 5, 1906.

Examination.—He was led into my office with a bandage over his eyes, and his companion told me that he was blind. I found that the eyelids of both eyes were red, shining and edematous. The edges of the lids were glued together by secretions. After soaking the lashes with warm water, the lids were opened and tears streamed from the conjunctival sac. There was not much secretion in the conjunctival sac. The palpebral conjunctiva was very red and swollen, the bulbar conjunctiva was edematous and intensely injected. The corneæ of both eyes were hazy, but the epithelial layer was apparently intact. The pupil was small, but there was no iritis and no disease of the posterior half of the eye. Both eyes were in about the same condition. The patient was complaining bitterly of pain and intense burning in his eyes and of photophobia. He was unable to keep his eyes open long enough to determine the refraction of the eyes and the amount of vision.

History.—This is the first time in his life that his eyes have been inflamed. For some years the tip of his nose has been somewhat red from enlargement of the blood vessels in the skin, and this has annoyed him a good deal, especially as he never indulges in alcoholic drinks. He was told that this condition could be removed, and thereon he consulted his family physician, a homeopath, who prescribed a salve which was to be applied to the skin of the nose every night and washed away again the following morning. He applied this salve only once, and on the following morning tried to wash it off, and in doing so he probably got some of it in his eyes. His eyes, which previous to this time had been in normal condition, began to give him pain soon afterward, and the lids began to swell in the afternoon of the same day. The pain and the swelling of the lids increased very much during the following night. He slept but little in consequence of the pain. I saw him forty-eight hours after he had rubbed the salve in his eyes. He showed me the salve he had been using. It looked like chrysarobin salve, but to make sure of its composition I applied to the apothecary who had compounded the salve for a copy of this prescription. It showed the salve to be composed of chrysophanic acid 3ii and lard 3vi.

Treatment.—An examination of the secretion from the conjunctiva showed it to contain a few pneumococci. I advised the patient to apply cold compresses to his lids, a salve of ammoniated mercury to the edges of the lids, and to put a drop of a 0.5 per cent solution of sulphate of atropin and 1 per cent. cocain in each eye six times daily. The cold application failed to give relief, and I substituted for them compresses wet with a warm solution of boracic acid. During the next two days his condition remained unchanged. I brushed the excoriated edges of the lids with a 1 per cent. solution of nitrate of silver once daily. On the third day the epithelium of the cornea was wanting in a number of places, mostly in the horizontal meridian, and in the right eye somewhat more than in the left, and the whole cornea appeared somewhat more hazy. The lids were now less swollen and much paler than previously. On the fifth day the deficiency in the epithelial layer of the cornea extended across the whole cornea and was about 1 mm. in width. The adjoining parts of the cornea were decidedly hazy; both eyes were in about the same condition. At this time there was but little secretion from the conjunctiva. On the sixth day the entire lower half of the cornea of the right eye was very hazy. The deficiency of the epithelial layer had not increased in extent. The left eye remained as before. He had but little pain, but the photophobia continued. On the ninth day there was a decided improvement in the condition of the corneæ of both eyes. There was less haziness, and the deficiency in the epithelial layer was gradually filling in. On the fourteenth day the corneæ were clear and there was no longer a defect in the epithelial layer, the lids were normal or very nearly so, and there was no secretion from the conjunctiva. He was free from pain, but still had photophobia. On the twentieth day both eyes were normal. The refraction was hypermetropia 2 D. S. 6/5, both eyes alike.

There can be no doubt, I think, that the eye disease was caused by the entrance of the chrysarobin salve in the conjunctival sac. Whether the corneal disease was due to the direct action of the chrysarobin or was caused by the conjunctivitis, I am unable to say. The disease of the cornea certainly made the case a much more serious one, as it endangered the sight of the eye. Fortunately, it passed away without leaving even a slight opacity of the cornea.

With regard to the treatment given in this case, I may add that I should not use cocain in such a case unless the pain could not be relieved by the other means employed. The tendency to exfoliation of the epithelium of the cornea is always great in such cases and is

doubtless increased by the cocain, especially if the eyes are kept open. In this case the eyes were kept closed for several days and I do not think that the shedding of the epithelium was caused by the use of the cocain. Holocain, which is also a local anesthetic for the cornea, is said to be free from this objectionable quality, but my experience does not confirm this. In most cases atropin and warm applications to the lids is all that is required to subdue the pain.

A primary disease of the cornea as the result of the application of a 20 per cent. chrysarobin salve to other parts of the body than the head, beginning after four weeks' use of the salve, is described by P. Krause.[1] In this case a ring-shaped opacity developed in the parenchyma of the cornea, which disappeared in a short time under the use of warm applications and instillation of atropin, but returned after the applications of the chrysarobin were resumed, and again disappeared under the above mentioned treatment in eleven days. He reports also another case in which furrows running radially somewhat like herpetic eruptions on the cornea were present. In this case the eye disease developed on the fifth day after the beginning of the chrysarobin application. The eyes were normal in about a month.

The fullest account of this affection is to be found in the recent work of Lewin and Guillery.[2] It is there stated that the development of a conjunctivitis has been observed after the external use of chrysarobin, even in cases in which it was not applied to the face. In 4 to 5 per cent. of patients treated with chrysarobin chloroform solution, a conjunctivitis was observed after twelve to twenty-four hours first in one eye, and a few hours later in the other. In the beginning the patient experiences an intense smarting and burning and edema, unpleasant sensations of heaviness in the eyes. The pain increases, blepharospasms appear, lachrymation is increased, and sometimes there is also a slight degree of photophobia. The conjunctiva of the eyeball and of the lids, especially that of the lower lid, is intensely injected. The conjunctiva of the upper lid may be intact. The cornea need not be affected, although ulcers of the cornea have sometimes occurred in connection with the conjunctivitis. The ante-period of this affection lasts three to four days. The injection of the conjunctiva continues for a longer period. The eyes are normal again after eight to ten days with or without treatment. There is no secretion from the conjunctiva. In the eye last affected the symptoms are usually less severe and disappear more quickly than in the eye first affected. The affection may disappear spontaneously, but may also be followed by unpleasant sequences. This conjunctivitis is to be regarded as a resorptive action, more especially since small quantities of the chrysarobin chloroform solution when introduced in the eye produce a mucopurulent inflammation, but such is not the case in the chrysarobin conjunctivitis, also because an infection by means of the fingers could be excluded, because the conjunctivitis reappears with every new application of the chrysarobin and because the resorption from the skin was proved. If chrysarobin enters the conjunctival sac in the form of a powder or as a salve, a catarrhal conjunctivitis is developed which may be followed by chemosis and even by ulcers of the cornea.

In the discussion following the reading of a paper entitled "The Therapeutic Value of Chrysophanic Acid in Dermatology," read by Dr. Charles James Fox,[3] Dr. Henry C. Baum said that he thought the chrysarobin should be used on the scalp only in exceptional cases. Kaposi himself had warned his pupils regarding the possible dangers of applying the drug in that locality. Dr. Baum said that he had seen a number of cases of violent dermatitis follow the use of chrysarobin on the scalp. He recalled an instance where a physician had applied a small amount of chrysarobin to a ringworm on the nose of a young woman. It produced a violent dermatitis, which extended to the eyes and culminated in complete blindness. In every instance in which this drug was applied to the face or scalp the case should be watched with the greatest care, and only a small area treated at a time until the individual idiosyncrasy of the patient can be determined. In the same discussion Drs. R. A. McDonald and Edmund L. Cocks said that they had applied the drug to the scalp with very satisfactory results and without producing conjunctivitis. Dr. L. Weiss said that in using chrysarobin on the face and scalp the possible resulting dermatitis could be prevented from spreading by the application of zinc gelatin which acts as a compress.

My patient, after he had recovered from his eye trouble, commented on his own case as follows: Vanity caused me to apply to a doctor to remove the redness from my nose; his salve did not cost much, but it disabled me for work for three weeks. I have suffered much pain and I still have my red nose.

1. Ztschr. f. Augenheilkunde, xv, 233.
2. Die Wirkungen von Arzneimitteln und Giften auf das Auge, II, 775.

MALIGNANT TUMOR OF THE TESTICLE.

DAVID L. WALMSLEY, M.D.
DETROIT.

Two cases of this disease are reported in THE JOURNAL February 9 and March 30. I wish to add a third case:

Patient.—On July 22, 1906, Mr. W., aged 40, married, one child, healthy up to the present, consulted me for the first time.

History.—The case dates back to injury to the right testicle by a baseball during high-school days. Pain and swelling followed the injury, and atrophy followed the subsidence of the local symptoms. The left testicle was normal. The man became reconciled to his injury, and being fully developed in every respect, paid no further attention to the deformity until the beginning of July, 1906, when his attention was drawn to it by a feeling of fulness and slight uneasiness of the atrophied organ. His family history is good. I advised close watching of the parts. On September 20 I again examined the patient, finding the atrophied testicle the size of an ostrich egg. The tumor was semisolid, smooth and egg-shaped. Light, not transmitted, slightly tender on pressure.

Treatment and Result.—Feeling suspicious of malignancy, I removed a specimen and submitted it to Dr. E. H. Hayward, pathologist to the board of health, whose examination determined malignancy, and I operated Sept. 22, 1906. The patient made a good recovery and was dismissed with instructions to return for inspection.

Dec. 4, 1906: He returned complaining of slight uneasiness in the stump, which he thought was enlarging. I discovered a nodule on the end of the stump and advised removal at once; this, however, was delayed until Jan. 6, 1907, when I removed the cord high up and with it the lymphatic glands and adipose tissue, hoping thereby to ward off recurrence. To date of writing (April 25) there are no indications of recurrence. The patient feels well and enjoys living, were it not for the eternal dread of returning trouble.

3. THE JOURNAL A. M. A., June 23, 1906, p. 1909.

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[*For other information see second page following reading matter.*]

SATURDAY, MAY 18, 1907.

UNIFORMITY IN THE STRENGTH OF TETANUS ANTITOXIN.

Tetanus antitoxin is undoubtedly of great value as a prophylactic and immunizing agent, its efficacy having been fully confirmed by both laboratory studies and numerous clinical experiences. It is highly important, therefore, that a standard unit for this serum should be provided such as now renders the administration of diphtheria antitoxin so accurate and satisfactory. The necessity for such a standard is evidenced by the fact that in this country, until recently, there were as many methods of standardizing tetanus antitoxin serum as there were manufacturers.

The standardization of this serum is a very difficult problem, and a vast amount of study has been devoted to its solution. Work on this subject has been carried on in the Hygienic Laboratory of the Public Health and Marine-Hospital Service for the past two years, with the result that a stable tetanus toxin has been obtained. This toxin, when preserved under conditions of absolute dryness *in vacuo*, and in the cold and dark, retains its strength for many months, and under ordinary conditions loses its strength very slowly. A satisfactory official standard is thus made possible, and we note with pleasure that the Public Health and Marine-Hospital Service[1] has now undertaken the important task of establishing an American standard.

As we have previously stated,[2] the official unit went into effect April 1, 1907, the committee of experts appointed by the Society of American Bacteriologists having recommended that "tetanus antitoxin be standardized by the tetanus toxin furnished by the Public Health and Marine-Hospital Service. The unit is ten times the least amount of serum necessary to save the life of a 350-gram guinea-pig for 96 hours against the official test dose of the standard toxin. The test dose is 100 minimal lethal doses of a precipitated toxin preserved under special conditions at the Hygienic Laboratory of the Public Health and Marine-Hospital Service. It was decided that the minimal immunizing dose for a case of possible infection through a wound should be 3,000 of such units. It was decided that after April 1 the new unit should be adopted by all producers of tetanus antitoxin."

1. Public Health Reports, P. H. and M.-H. S., vol. xxii, No. 3, Jan. 18, 1907, 43.
2. THE JOURNAL A. M. A., Jan. 26, 1907, 338.

The necessity of establishing uniformity in this respect is strikingly shown in the results of examinations of different serums sold on the market. The units claimed per cubic centimeter by the manufacturers of seven samples varied from 0.1 to 6,000,000 and the units per c.c. actually contained in these samples, according to the American standard, varied from 2 to 769. It is evident from these figures that there has been a marked difference in the potency of the serum found on the market, due to the great discrepancy in former systems of measurement.

With the adoption of the new standard an accurate dosage of antitetanic serum will be made available for both prophylactic and therapeutic purposes, and more reliable data will be secured regarding its beneficial effects. With the preparation of this standard and its subsequent supervision by the Public Health and Marine-Hospital Service a serum of undoubted purity and definite potency is assured.

THE NOMENCLATURE OF SYNTHETIC MEDICINES.

The difficulties and disadvantages connected with the present nomenclature of the rapidly increasing number of synthetic chemicals introduced into medicine is forcibly presented in a recent issue of the *British Medical Journal*. Three phases of the difficulty present themselves: 1. The distinctive and systematic chemical terms are too meaningless to the ordinary physician and too long and cumbersome for common use. 2. The shorter names introduced by the manufacturers are arbitrary and, being protected by registration, are intended to prevent the use of the products of rival houses when the patents expire. 3. If a preparation shows any degree of popularity it is likely to be introduced by other firms under new names so that the multiplicity of names for the same article becomes confusing. Further, it is possible that a substance which has proved unsatisfactory may be again introduced under a new name and be considerably used before its true character and worthlessness is discovered. This has often been done. Frequently, also, a substance is introduced in various countries under different names; therefore, an international nomenclature is needed. As a remedy for these evils it has been proposed that unregistered coined names be provided for the new synthetics and that such names be published in the *Chemist's Annual*, which is a special yearly issue sent to all members of the Pharmaceutical Society of Great Britain.

The question is one that concerns the medical profession more than the pharmaceutical, since the physician must first use the name in prescribing, and while the pharmacist will be justified in using any preparation of the chemical if it is prescribed under a non-protected name, his knowledge of such a name will not justify him in substituting if the physician, ignorant of such a name, has used the protected one chosen by the pro-

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prietary manufacturer. Some medium is needed to secure wide publicity of these names among the members of the medical profession. The names should be authoritative, convenient and systematic, but should not indicate, as suggested by the *British Medical Journal*, the therapeutic properties of the drug. In rare cases in which the chemical composition is not too complex a name indicating its derivation might be chosen. That something should be done no one will deny, but just what, and how, is a difficult problem to solve. Conditions are getting to be almost unbearable; new names are coined daily, and no one is consulted, except as suits the manufacturer or the one who introduces the product.

The coined names themselves are very often misleading, giving false indications of origin or quality, and under the Food and Drugs Act such names as these are excluded from interstate commerce. The chief difficulty is the property right in a registered name. This opens up an inviting field of gain by permitting the sale of the same article under as many different names as the imaginative manufacturer can create. The whole system is intolerable from the scientific view of medicine and pharmacy.

Until recently there has been no person or organization that could take up the matter. At present the Council on Pharmacy and Chemistry, if it were authorized to do so by the American Medical Association, might take up the subject and work it out. Or some central body might be organized which would represent the American Medical Association, the American Pharmaceutical Association, the American Chemical Society, the Society of Chemical Industry and the Committee of Revision of the United States Pharmacopeia. In this way definite, practical results would follow and an end be put to the hopeless confusion that now exists.

MEDICINAL FOODS.

The report on medicinal foods by the Council on Pharmacy and Chemistry of the American Medical Association, which was printed in THE JOURNAL last week (page 1612), contains information of vital importance to all practicing physicians. In order that when they use these preparations they may do so on a rational basis, it would, indeed, be well if every doctor in the country would read and read again, first, the report of the Council, and then, as a comment thereon, Dr. Edsall's letter in this issue (page 1694). It has been said that publicity is the best remedy for certain public evils. The facts in regard to so-called medicinal foods—their failure to measure up fully to what has been and is claimed for them, their great relative cost, their dangerous alcohol content, and the likelihood that some physician following blindly the optimistic suggestions of those commercially interested will do his patients harm—these facts are now public, and every intelligent physician who becomes familiar with these facts may be counted on to take the necessary steps to guard himself and his patients against placing more confidence in these articles than they deserve.

But, in order that publicity in this case shall have the desired effect promptly and decisively, it must be made general and the facts, humiliating as they are, must reach the rank and file of the profession all over the country. In view of the importance of this matter it is nothing less than a duty that those who, as active workers and leaders, are committed to the promotion of general professional efficiency and progress, take special pains to direct the attention of their colleagues to the facts now presented in regard to medicinal foods. Clearly greater general interest must be taken in the homely but important subject of dietetics. The manufacturers have shown themselves very active dietetic teachers, but the place assumed by them should be reclaimed by the therapeutist, who should take deeply to heart Dr. Edsall's plea for greater exactness and thoroughness in dietetic teaching and practice.

On the other hand, let us as physicians not forget to take on ourselves the blame which lies at our door. Some of these manufacturers have stated exactly the content of the products, and the physician is presumed to draw his own conclusions as to whether it is possible for the products to do what the manufacturers claimed for them. It should be further said to the credit of some of the manufacturers that when the Council called their attention to certain statements they readily complied with the suggestion to modify such statements.

This general subject was taken up by the Council, and a special committee appointed to report on it, because, when it faced the problem of passing on certain of these articles, it realized that it was a problem that did not apply to one product only but to all as a class. The results of the experimental work of the committee and its deductions and conclusions will, of course, not be startling or new to those who have been especially interested in the question; but it is the first time that the subject has been brought directly to the attention of the medical profession in a practical manner. We understand that some of the products mentioned in the table will be approved by the Council, but in the description published in New and Non-Official Remedies a definite statement will be made not only as to the alcoholic content, but as to the caloric or actual food value of the product, so that the physician will be able to use his judgment as to whether or not it is what he wants in individual cases.

LATIN DERIVATIVES IN MEDICAL WRITING—THE USE OF THE INTERNATIONAL MOTHER TONGUE.

The attention of medical writers is directed to the interesting plea on page 1714 for the use of Latin derivatives in order to facilitate the reading of articles by foreigners. The immediate advantages of the plan are so evident and they are so well stated in the "plea" itself that further elaboration really is unnecessary except by way of emphasis. The importance of exact titles for medical and scientific articles has often been discussed. Many an important observation has escaped deserved notice and remained buried in the literature deprived of opportunity to influence the development of knowledge because of misleading, incorrect or inadequate title. On account of the enormous extent of the current medical literature of the present day, it is more important than ever that the title should reveal at a glance the special topic and the scope of the article. Otherwise the article is likely to remain unnoticed by those who would profit most by it and who would make the best use of it, namely, the special worker in the same special field as that with which the article is concerned. Exact, specific titles also help to lighten the labors of librarians and of others who perform the useful functions of indexing medical literature so as to make its contents readily available for the student. Furthermore, the effort on the part of the author to formulate an expressive title—often a difficult task—may serve to concentrate the attention on the construction and order of his article and on the important question, only too commonly neglected, whether the article conveys in the briefest form consistent with clearness the real message he desires it to bring. Now, in view of the increasing extent as well as importance of American medical literature, our authors certainly will further its recognition and, what is more important, aid general scientific progress by the use, especially in the titles of their articles, of terms the meaning of which is grasped readily by educated physicians elsewhere. The value of cooperation in medical progress needs no emphasis and by proper attention to details like those spoken of here medical writers will do much to promote general cooperation.

THE ARMY MEDICAL DEPARTMENT.

Although the Fifty-ninth Congress enacted some useful measures which had long been desired and needed by the country, the credit due therefor is somewhat offset by its neglect to grant relief in other directions; and among the latter the failure on the part of the lower house to provide a more effective organization for the Army Medical Department can not be regarded otherwise than as a very grave omission. This failure is entirely due to the action of Mr. Cannon, the speaker, who for some occult reason has either failed to understand the necessity for the legislation, or understanding it, has some personal reason for not favoring it. The Army Medical Department was reorganized in February, 1901, at which time the Army was largely increased, the peace footing being placed at 60,000 men and that for war at 100,000, while the medical department was organized for an army of only 40,000 men. Moreover, the lower ranks in the medical department were increased out of all proportion to the upper ranks, so that now as regards the prospect of promotion the department offers less inducements than any other in the Army. Owing to the shortage of commissioned medical officers it is necessary to employ from 150 to 200 civilian physicians by contract to supply the existing deficiency. The necessity for relief in this matter is patent and urgent. The medical profession of the country, as represented by the American Medical Association, has time and again urged that the needed law be enacted. The President, Secretary Root, Secretary Taft and others have urged it. The Senate passed the bill twice and the House was willing to pass it, but the speaker refused to let it come up. Mr. Cannon is, therefore, wholly responsible for its failure and on him must rest the entire blame and responsibility. It is impossible to get competent young physicians to fill the vacancies in the grade of assistant surgeon, notwithstanding that every possible effort has been made to do so. The number of candidates for these positions this year is surprisingly small. The War Department believes the explanation of this is to be found in the neglect of the medical department by Mr. Cannon, the speaker of the House, and that unless the condition of the Army Medical Corps is improved it will be more and more difficult to fill the vacancies.

A REMOTE DANGER OF PARAFFIN PROSTHESIS.

A few cases are coming to light which indicate a possible accident from the use of paraffin for prosthetic purposes, which might have been anticipated, but which apparently has been entirely overlooked. This consists of a connective tissue overgrowth at the site of the paraffin injection, as a result of the long continued slight irritation produced by the presence of the paraffin. Heidingsfeld[1] has recorded two cases of this sort in which paraffin had been used by "beauty doctors" for the removal of wrinkles or hollows about the face and neck. In these two cases there had developed at the site of the injections reddish tumor-like masses from the size of a pea to that of an English walnut and of the appearance of keloids. A similar case was recently shown at the Chicago Dermatological Society by Armsby. In this case a beautifier had injected paraffin into the lower lids and between the eyes to remove wrinkles. The result was eminently satisfactory for about a year; then, however, tumors began to develop at the sites of the injections, and when the patient was exhibited there existed in either lower lid and in the glabella an oval tumor of the size of a large olive. These masses were hard and dense, the skin over them was of a purplish color, and they bore a striking resemblance to sarcomata. At the time that this patient was shown the tumors were still growing and had been increasing in size for several months. The amount of deformity produced by these large purplish swellings can readily be imagined. Sections from these cases show a connective tissue overgrowth, like a granuloma, with many giant cells and other evidences of a chronic inflammatory process produced by a long-continued irritation of low grade. The tumors present

1. Jour. Cut. Dis., November, 1906.

many similarities to keloid and it is possible that their treatment will be by no means satisfactory. These accidents, of course, belong in a different category from those in which deformity is produced from the unskilful use of paraffin or from accidents which result in the deposition of the paraffin in improper places or to an excessive amount. The formation of these tumors is an accident which can not be guarded against or prevented, and the accidents suggest that before one uses paraffin for the relief of trivial troubles like wrinkles he should ponder the possibility of an untoward result. In fact, this possibility makes it exceedingly questionable whether the use of paraffin prosthesis is justifiable for the treatment of slight cosmetic troubles.

Medical News

ALABAMA.

Personal.—Dr. M. L. Tidwell, Evergreen, has been assigned to duty as an interne at Bryce Hospital, Tuscaloosa.——Dr. Willis W. Scales, formerly quarantine physician at Fort Morgan, has been assigned to duty at Colon, Panama.——Dr. Gregorio M. Guiteras has taken charge of the Marine Hospital, Mobile.——Dr. James J. Peterson, Mobile, is reported to be dangerously ill with appendicitis at the Inge-Bondurant Sanitarium.

CALIFORNIA.

Commencement.—The commencement exercises of Cooper Medical College, San Francisco, were held May 8. The address of the evening was delivered by Rev. George W. Stone, and a class of 28 was graduated.

Spinal Meningitis.—Spinal meningitis is reported to be epidemic in the Sacramento Valley. A largely attended meeting has been held in Woodland to investigate the cause of the disease and to discuss the situation.

Society Meeting.—Butte County Medical Society, at its annual meeting in Chico, elected Dr. Buchanan Caldwell, Biggs, president; Dr. Lewis Q. Thompson, Gridley, vice-president; Dr. Ella F. Gatchell, Chico, secretary-treasurer; Dr. Oscar Stansbury, Chico, censor and delegate to the State Medical Society; and Dr. Labon C. Perdue, Chico, alternate.

Personal.—The Board of Health of Chico has organized with Dr. John W. Harvey as president, and Dr. Wasley, health officer (re-elected).——Dr. O. D. Hamlin, chief surgeon of the Oakland Receiving Hospital, has been given 90 days leave of absence and will visit the Atlantic seaboard.——The City Council of Alameda has appointed the following board of health: President, Dr. J. Emmet Clark; Drs. Harold A. Miller, James K. Hamilton and Ernest M. Keys. The board has appointed Dr. L. W. Stidham city physician.——Dr. Ernest Barry, San Francisco, while visiting in Monterey, April 26, fell from a balcony, fracturing the pelvis.——Dr. John H. Kuser, Novato, has been appointed physician of Marin County, vice Dr. William J. Wickman, San Rafael.

Hospital News.—The University of California Hospital, San Francisco, was opened to receive patients, April 15. The institution has a capacity of 42 patients and the attending staff includes the faculty of the University of California Medical Department.——The Saint Caroline's Hospital, Redding, will be completed early in September at a cost of more than $20,000. It is a two-story and basement structure, 56 by 72 feet, in the mission style of architecture. There will be two wards of six beds each and also ten private rooms.——The Santa Monica Bay Hospital, erected by a corporation composed of local physicians, at a cost of $25,000, with a capacity for 25 patients, will be open to the public early in May.——The Mammoth Copper Company has completed a hospital with two private wards, and a ward containing eight beds with accommodation for operating rooms for physicians and nurses at a cost of $10,000 at Kennett.——The cottage hospital, at San Rafael was formally opened May 9. The medical staff consists of Drs. Harry O. Howitt, William J. Wickham and William F. Jones.

DISTRICT OF COLUMBIA.

March Mortality.—During March, 1,558 deaths were reported, 42 less than in February, 69 more than in March, 1906, and 308 more than the average number of deaths for the month during the five years preceding. This is equivalent to an annual death rate of 18.06 per 1,000. The deaths reported from infectious diseases were 293, or 18.8 per cent. of the total mortality. Chief among the death causes were pneumonia, 242; nervous diseases, 173; heart diseases, 165; consumption, 143; influenza, 87; accidents and violence, 78; and bronchitis, 63.

To Help Internes.—Commissioner McFarland has provided a plan to improve the status of internes at the Washington Asylum Hospital which provides for their promotion to resident physicians and physicians to the poor. The plan provides that internes shall be appointed by competitive examination; that when an interne has served one year and passed the district examining board and licensing board he shall be promoted to the position of resident physician for six months; then he shall be transferred to the Home for the Aged and Infirm for a like term, and then to the Tuberculosis Hospital, serving six months as a resident physician. If, at the end of this time, his record, moral and professional, is good, he shall be appointed physician to the poor.

GEORGIA.

District Society Meeting.—The next meeting of the Sixth District Medical Association of Georgia will be held at the Wigwam Hotel, Indian Springs, June 12.

Change in Medical Journal.—Dr. Miller B. Hutchins, Atlanta, has disposed of his entire interest in the *Atlanta Journal-Record of Medicine*, and retired from its management May 1.

Tuberculosis Prevention.—The Atlanta Sanitary and Tuberculosis Prevention Society was organized May 6, when a constitution presented by a committee consisting of Drs. Rufus R. Kime and J. E. Summerfield, and Eugene Mitchell was presented for adoption.

Medical Club Formed.—An organization known as the Emory Club was organized March 21 by the students of the Atlanta School of Medicine. The club is composed of graduates of Emory College and will work in the interest of that college and of the Atlanta School of Medicine.

In Memory of Pioneer Anesthetist.—At a meeting of the Jackson County Medical Society, held in Jefferson, April 10, a monument to the memory of Dr. Crawford W. Long was presented by the society to the city of Jefferson and Jackson County. The monument is to be erected on the spot where Dr. Long first performed a surgical operation under anesthesia.

Commencement Exercises.—The commencement exercises of the Medical College of Georgia, Medical Department of the University of Georgia, Augusta, were held May 1, when a class of 21 was graduated. Diplomas were presented by Chancelor David Barrow, and the address of the evening was delivered by Rev. S. R. Belt.——The annual commencement exercises of the Atlanta College of Physicians and Surgeons were held April 27, and a class of 37 received diplomas. The address of the evening was delivered by Hon. Robert C. Alston, and the diplomas were conferred by Judge Howard Van Epps.——The commencement exercises of the Atlanta College of Medicine were held April 23, when a class of 20 received diplomas from the hands of Bishop C. K. Nelson, vice-president of the board of trustees. Rev. James W. Lee delivered the annual oration.

ILLINOIS.

Maternity Opened.—The Elizabeth Williams Memorial Hospital, the maternity department of the Evanston Hospital, just completed at a cost of $25,000, was formally dedicated May 9.

Smallpox.—A case of smallpox has occurred at Rushville, said to have been imported from Beardstown.——On account of the prevalence of smallpox at Tremont, the commencement exercises at the high school have been postponed.

Personal.—Dr. and Mrs. Robert A. Noble, Bloomington, have returned from abroad.——Dr. Frederick W. Werner, Joliet, who has been ill with sciatica, is reported to be improving.——Dr. T. J. Fenton, Philo, is reported to be critically ill at the Burnham Hospital, Champaign.——Dr. Leigh E. Schwartz, Highland Park, sailed for Europe May 2.

Civil Service Examination.—The State Civil Service Commission announces that it will call an examination for assistant physicians in the hospitals for the insane, internes, and possibly a psycho-pathologist, in June. These positions pay from $75 to $125 per month and board, in the majority of cases. The position of psycho-pathologist will, it is believed, pay not less than $3,000 a year. The new institute is to be

located at Kankakee and the psycho-pathologist will live there.

Society Meetings.—The thirty-first annual meeting of the Brainard Medical Society was held at Lincoln, April 25, jointly with the Logan County Medical Society. The following officers were elected: President, Dr. Calvin C. Montgomery, Lincoln; vice-presidents, Drs. Archibald G. Servoss, Havana, Don W. Deal, Springfield, and John W. Bozarth, Mount Pulaski; secretary, Dr. Harry S. Oyler, Lincoln; treasurer Dr. Charles C. Reed, Lincoln, and censors, Drs. John M. Wilcox, Clinton, William A. Mudd, Athens, and Charles M. Noble, Bloomington. ——At the thirty-third annual meeting of the Central Illinois District Medical Society, held in Pana, April 20, the following officers were elected: President, Dr. Frank P. Auld, Shelbyville; vice-presidents, Drs. Ben B. Griffith, Springfield, and Don W. Deal, Springfield; treasurer, Dr. John N. Nelms, Taylorville, and secretary, Dr. Roscoe C. Danford, Pana.——At the regular monthly meeting of the Champaign County Medical Society, April 11, the following resolutions were unanimously adopted:

WHEREAS, In certain parts of the county, fees are allowed for treatment of pauper cases, while in other parts of the county the payment is refused; be it

Resolved, That it is the sense of this society that operation fees and full fees for attendance be charged for treating pauper cases on orders from supervisors; be it further

Resolved, That this resolution be binding on the members of this society immediately on its adoption; be it further

Resolved, That a committee of three be appointed to confer with the board of supervisors at their next meeting.

Chicago.

Bequest to Hospital.—By the will of James Henry Smith, $100,000 is bequeathed to St. Luke's Hospital, of which he was a trustee.

Contagious Diseases.—During the week ended May 11, 99 cases of scarlet fever, 66 cases of diphtheria and 117 cases of measles were reported. Measles and whooping cough are reported to be very prevalent.

Promotions in University of Chicago.—Dr. Robert R. Bensley has been made professor of anatomy, Edwin O. Jordan professor of pathology and bacteriology, and Drs. Howard T. Ricketts and Norman M. Harris assistant professors in pathology and bacteriology.

Personal.—Dr. Albert I. Bouffleur has returned after a few months in California.——Dr. and Mrs. Alfred C. Croftan are visiting in Pasadena, Cal.——Dr. William H. Knapp is reported to have been seriously injured in the accident on the Mexican Central Railway, at Bermejillo, Mexico, May 11.

Deaths of the Week.—During the week ended May 11, 47 fewer deaths were reported than during the previous week, the respective numbers being 717 and 764, equivalent to annual death rates of 17.74 and 18.90 per 1,000, respectively. Pneumonia caused 153 deaths, consumption, 92; heart diseases, 59; nephritis, 49; violence, including suicide, 46; cancer, 31; diphtheria and scarlet fever, each 10; whooping cough, 8; typhoid fever, 6, and influenza, 5.

INDIANA.

State Association Meeting.—The fifty-eighth annual meeting of the Indiana State Medical Association will be held at Indiannpolis, May 22, 23 and 24.

Society Meetings.—At a meeting of the Eighth District Medical Association, held at Union City, April 18, Dr. General W. H. Kemper, Muncie, was re-elected president; Dr. Maynard A. Austin, Anderson, was elected secretary-treasurer; Dr. Etta Charles, Summitville, censor, and Dr. Frank G. Keller, Alexandria, commitee on arrangements.——At a meeting of the Third District Medical Association, held in Bedford, Dr. Charles P. Cook, New Albany, was elected president, and Dr. William C. Cauble, Salem, secretary.

KANSAS.

Personal.—Dr. Matthew R. Mitchell has been appointed city physician of Topeka.——Dr. Charles B. Van Horn has been made president, Dr. Matthew R. Mitchell, secretary, and Dr. May Stout, a member of the Topeka Board of Health.—— Dr. William S. Fleming, Arcadia, sustained serious bruises in a runaway accident April 23.

Graduation Exercises.—The seventeenth annual commencement exercises of the Kansas Medical College, Medical Department of Washburn University, Topeka, were held April 16, when a class of 14 was graduated. Dr. William S. Lindsay, dean of the college, conferred the degrees, and the address to the graduates was delivered by Dr. Henry B. Ward, Lincoln, dean of the Medical Department of the University of Nebraska.

Communicable Diseases.—During the first quarter of 1907 317 cases of measles were reported in Topeka.——Smallpox is reported at Buffalo Gap, Sycamore, Avoca and Stamford.—— Two cases of smallpox have occurred among the convicts at the State Prison, Lansing.——On account of a case of smallpox in Elmdale, April 26, the city schools were closed.——The prevalence of measles in Kansas City threatens the closure of the public schools. During the last week of April six deaths resulted from the disease, and on the first two days of the week 52 cases were reported. It is believed that there are at least 400 cases in the city.

KENTUCKY.

Delegate to Milk Commission.—The milk commission of the Jefferson County Medical Society has appointed Dr. Henry E. Tuley a delegate to the Conference of Milk Commissions of the United States, to be held at Atlantic City, June 3, at which time an association will be formed. Dr. Henry L. Cort of Newark, N. J., is temporary chairman.

Personal.—Dr. Homer Blaine, mayor of Cadiz, has been appointed captain and assistant surgeon, Ky. N. G., and assigned to duty with the Third Infantry.——Dr. Henry C. H. Gunkel, Newport, fractured two of his ribs in a fall down stairs May 3, and, on account of his advanced age, his condition is considered serious.——Dr. George W. Ronald, Louisville, is reported to be critically ill with congestion of the brain..

Tuberculosis Dispensary.—The dispensary for tubercular patients, established under the auspices of the Kentucky Anti-Tuberculosis Association, will open June 1. The committee reports that a suitable house has been found on Chestnut Street, between Brook and Floyd. No patients will be housed in the building, but individuals suspecting that they have tuberculosis will come to the dispensary to be examined by the physician on duty.

State Hospital Changes.—Announcement has just been made of the following appointments by the State Board of Control of Charitable Institutions: Dr. Lewis H. Mulligan, Lexington, superintendent at the Central Kentucky Asylum for the Insane at Lakeland; Dr. J. W. Stephenson, Todd County, superintendent at the Western Kentucky Asylum for the Insane at Hopkinsville, and Dr. Alexander Bailey of Franklin County, superintendent of the Feeble-Minded Asylum, Frankfort, to fill vacancies caused by resignations. The board also formulated rules for the governing of the institutions under their charge; business methods, according to the system of an audit company, have been installed in all, and they will be controlled from the central office. The institutions have been placed in the complete charge of the superintendents.

MARYLAND.

Baltimore.

Disposition of Tuberculosis Fund.—The Maryland Association for the Prevention and Relief of Tuberculosis will use the fund of $10,000 recently raised, to maintain three tuberculosis nurses, to display throughout the city and state a tuberculosis exhibit with daily addresses by the secretary, to distribute literature and to establish two or three tuberculosis dispensaries.

Personal.—Dr. Henry Barton Jacobs sailed from New York for Europe May 8.——Dr. David Street was thrown from his carriage in a collision May 9, and severely bruised.——Dr. William N. Hill is head of the "mosquito brigade" sent out by the health department.——Among the medical men who will receive honorary degrees from the University of Maryland at the approaching centennial are: Drs. William T. Councilman and J. Homer Wright, Boston; Major James S. Carroll, surgeon U. S. Army; Dr. J. Ford Thompson, Washington, D. C.; Drs. Charles P. Noble and Alexander C. Abbott, Philadelphia; Drs. Nathaniel G. Keirle and Thomas C. Gilchrist, Baltimore.

MASSACHUSETTS.

Scarlet Fever Closes Schools.—On account of the existence of scarlet fever the Mary A. Livermore grammar school, Melrose, has been closed for four days.——The prevalence of scarlet fever among the students and attendants at Lawrence Academy, Groton, caused its closure on May 3 for ten days.

To Investigate Light in Schools.—As a result of numerous complaints that the coloring of the walls and the bad lighting of the English High School were injurious to the eyes of the pupils the Boston School Board has appointed a committee to investigate conditions and report to the board. The committee includes two expert electricians and Drs. George S. Derby, Frank I. Proctor and Myles Standish.

MICHIGAN.

Graduation Exercises.—The eleventh annual commencement exercises of the Grand Rapids Medical College were held May 2, when a class of ten was graduated. The address was given by Dr. George L. McBride, and the degrees were conferred by Dr. Francis J. Lee.

Communicable Diseases.—More than 200 cases of measles are reported at Elmira.——More than one-fourth of the school children of Morris are reported ill with measles.——The physician of Houghton County announces a number of cases of smallpox in Houghton, Keweenaw and Baraga counties.——Two students at the State Normal College, Ypsilanti, have smallpox.

Personal.—Dr. and Mrs. Theodore E. Sands, Battle Creek, returned from Europe April 20.——Dr. A. Marion Allen, the oldest practitioner of Adrian, has decided to retire from active practice.——Dr. C. Henri Leonard, for more than 25 years a member of the faculty of the Detroit College of Medicine, has been made emeritus professor of the diseases of women and clinical gynecology.

MISSOURI.

New Hospital.—Work has begun on the new St. Mary's Hospital, Kansas City. The plans call for a three-story and basement structure, to cost about $200,000.

Interne Examination.—A competitive examination for positions at the St. Louis City Hospital will be held by the board of health May 20. Thirty-two appointments will be made following the examination, which is open to students of the various medical colleges of the city.

Graduation Exercises.—A class of 26 was graduated at the thirtieth annual commencement of the Ensworth-Central Medical College, St. Louis. The address of the evening was delivered by Rev. Sanford P. Cresap, and Dr. Jacob Geiger, the dean, conferred the degrees.——The annual commencement exercises of Barnes Medical College, St. Louis, were held May 11, when a class of 76 received diplomas. The alumni banquet of the college was held May 7.

Personal.—Dr. Walter C. G. Kirchner assumed charge of the St. Louis City Hospital May 1, vice Dr. John Young Brown, resigned.——Dr. Henry S. Brookes has succeeded Dr. Eugene J. Neville as surgeon to the St. Louis fire department.——Dr. David W. Scott, St. Louis, was run over by a wagon May 1, while attempting to save a small child from being run over.——Dr. Elias Potter Lyon has been elected dean of the medical department of the St. Louis University, vice Dr. Young H. Bond; Dr. William G. Moore has been re-elected vice-dean.——Dr. William B. Winn has been confirmed as assistant health commissioner of St. Louis.——Dr. G. Wilse Robinson, Kansas City, has been made superintendent of State Hospital No. 3, Nevada, vice Dr. Larkin H. Callaway; Dr. Frank Devilbiss, Eugene, has been chosen assistant physician at the hospital, vice Dr. V. A. Williams, resigned.

NEBRASKA.

Medicine Vendors Barred.—Itinerant medicine vendors have been barred by the city council from obtaining licenses to sell their wares on the streets of Omaha.

Personal.—Dr. Lorenzo C. Voss has been appointed city physician of Columbus, vice Dr. Charles H. Platz, resigned.——Dr. George L. Miller, Omaha, has resigned as president of the Nebraska Humane Society.

Commencement.—At the annual commencement of the Creighton Medical College, Omaha, May 4, a class of 37 was graduated. At the banquet which was given the graduating class and alumni, Dr. Henry B. Jennings, Council Bluffs, Iowa, was toastmaster.

NEW YORK.

Signed by the Governor.—The governor has signed the Dunn bill providing that managers of state charitable institutions who fail to attend the meetings of their boards, or to make visitations for three successive months, shall be deemed to have vacated their positions unless the absence is excused by the governor.

Two Anticocain Bills Passed.—Without discussion or opposition, the senate passed the bill making it a felony to sell cocain and eucain except on a physician's prescription; also the Whitney bill which also prohibits the sale of these drugs except on a physician's prescription, but provides a different system of prosecution and less severe penalties.

Hearing on the Medical Board Bill.—A hearing on the bill, which proposes to create one medical board of examiners for all schools of medicine, was held before the governor on May 9. The homeopaths and eclectics bitterly opposed the bill on the ground that it is class legislation. The speakers for the bill included Drs. Arthur Root of Albany, for the Medical Society of the State, Frank Van Vleet of New York, for the Medical Society of New York, and Howard J. Rogers.

Recommends Long Lease of Ward's Island.—The Hospital Commission, at its last meeting, recommended that a fifty years' lease of Ward's Island to the state be entered into by the city on condition that the state construct on the island a modern hospital for the insane poor of the city. This commission has been in existence for about a year, and one of its tasks is to decide what to do about a new Bellevue Hospital and to simplify hospital regulations. It will recommend whether a central hospital, to take the place of Bellevue, be constructed at a cost of twelve to fifteen million dollars, using the site now occupied by Bellevue, or whether the money shall be spent in erecting three or four hospitals in various parts of the city.

New York City.

Large Gift to Hospital.—The will of the late James Henry Smith bequeaths $100,000 to the Orthopedic Hospital. The testator was a trustee of the hospital.

Hospital Removal Bill Vetoed.—Mayor McClellan disapproved of the bill passed by the legislature to prevent the removal of dying patients from different hospitals to Bellevue.

Mayor Approves of Milk Stations.—Mayor McClellan has signed the resolution adopted by the Board of Aldermen asking the Board of Estimate and Apportionment to issue special revenue bonds for $8,000, the proceeds to be used for the erection of milk stations in the parks.

Alleged Unlicensed Doctors Held.—Charles Conrad and Paul Schmitt were arraigned before the Yorkville police court charged with practicing medicine without a license. It is alleged by the prosecutor of the County Medical Society that the men posed as physicians and claimed that they could cure glanders.

Police Surgeons Districted.—The twenty-five police surgeons who make up the medical corps of the police department, and who heretofore have been compelled to go from one end of the city to the other, according to where policemen lived, will hereafter have to attend only men living in districts to which they have been assigned.

Changes in Faculty.—At a meeting of the faculty of Columbia University, the resignation of Dr. George H. Fox, professor of dermatology, was accepted. Dr. Francis Huber was appointed professor of clinical medicine; Dr. Frederick Peterson, professor of psychiatry; Dr. Andrew J. McCosh, professor of clinical surgery, and Dr. Pearce Bailey, adjunct professor of neurology.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended May 4, 492 cases of scarlet fever, with 19 deaths; 445 cases of tuberculosis, with 180 deaths; 534 cases of measles, with 12 deaths; 342 cases of diphtheria, with 38 deaths; 88 cases of typhoid fever, with 23 deaths; 56 cases of whooping cough, with 9 deaths; 27 cases of cerebrospinal meningitis, with 20 deaths; 74 cases of varicella and 3 of smallpox, making in all 2,061 cases, with 310 deaths.

Personal.—Dr. Robert W. Hall and Dr. John J. White have been appointed fire surgeons at salaries of $3,300 a year. Dr. J. Bayard Clark sailed for Europe on the *Blücher*, May 11.——Dr. Joseph D. Bryant had the degree of doctor of laws conferred on him by the chancellor of the New York University at a meeting of the faculty of the University and Bellevue Hospital Medical College, April 30.——The Medical Society of Athens, Greece, in recognition of the labors of Dr. Achilles Rose in medical onomatology, has elected him a corresponding member.——Dr. Louis W. Bremerman has resigned as associate professor of genitourinary surgery in the New York School of Clinical Medicine on account of his removal to Chicago.

NORTH DAKOTA.

Changes at State Hospital.—Dr. Louis B. Baldwin, superintendent of the North Dakota Institution for the Feeble-Minded, Grafton, has been appointed superintendent of the State Hospital for the Insane of North Dakota, Jamestown, vice Dr. Dwight S. Moore.

Society Meeting.—The Sheyenne Valley Medical Society held its annual meeting at Valley City and elected the following officers: President, Dr. Carl L. Brimi, Cooperstown; vice-president, Dr. Albert A. J. Lang, Sanborne, and secretary-treasurer, Dr. Willis C. Nolte, Dazey.

Smallpox.—Owing to the fact that occasional cases of smallpox have been found in the towns around Grand Forks, and by reason of the risk involved of its spread at the breaking up of the lumber camps, the Grand Forks Board of Health has decided to insist on the state law requiring the vaccination of all children attending public schools.

OHIO.

Public Policy and Legislation.—The state and auxiliary committees on public policy and legislation of the Ohio State Medical Association will hold a joint meeting May 22 at Columbus. The chief subjects to be discussed are: "A Summary of Medical Legislation," Dr. John W. Clemmer, Columbus; "Illegal and Fraudulent Practitioners," Dr. Walter H. Snyder, Toledo; "Education of the Public as a Check to Evils of Venereal Diseases," Dr. Benjamin R. McClellan, Xenia; "Medical Practice Legislation," Dr. Charles A. L. Reed, Cincinnati; "Criminal Abortion," Dr. Robert H. Grube, Xenia; "The Advertisement of Venereal Cures in Public Press," Dr. David R. Silver, Sidney; "Proprietary Medical Legislation," Dr. George H. Matson, Columbus; "The Public Health Service," Dr. Walter W. Brand, Toledo; "Tuberculosis Legislation," Dr. Charles C. Probst, Columbus, and "Medical Service in Public Institutions," Dr. Gilbert E. Robbins, Chillicothe.

County Secretaries' Meeting.—The secretaries of seventy-five county medical societies of the state met at Columbus, April 25. Dr. J. H. J. Upham, Columbus, was made temporary chairman, and Dr. Charles J. Shepard, Columbus, temporary secretary. It was decided to hold another meeting at Cedar Point at the time of the meeting of the state association in August, and to effect a permanent organization. Among the papers read were the following: "Address of Welcome," Dr. Frank Winders, Columbus, secretary of the Ohio State Medical Association; "The Relation of the Secretary to the Society and to the Profession," Dr. Clyde E. Ford, Cleveland, secretary of the Cleveland Academy of Medicine and the Cuyahoga County Medical Society; "The Relation Between Local and District Societies," Dr. Joseph S. Rardin, Portsmouth; "How the Secretary's Work May be Made Easier," Dr. Carrie Chase Davis, Sandusky, secretary of the Erie County Medical Society; "My Plans for the Struggle," Dr. Cornelia B. Kennedy, Findlay, secretary of the Hancock County Medical Society; "What Can a Secretary Do to Secure More Members?" Dr. John B. Donaldson, Lorain, secretary of the Lorain County Medical Society. After luncheon, which was served at the Neal House, Dr. Charles A. L. Reed, Cincinnati, spoke on medical legislation; Dr. John B. Donaldson, Canonsburg, Pa., secretary of the Washington County (Pa.) Medical Society, spoke on "The Secretary and His Opportunity." Papers by Dr. Hirschel Fisher, Lebanon, secretary of the Warren County Medical Society, on "How Can We Make Open Meetings More Successful?" Dr. Horace Bonner, Dayton, councilor for the second district, on "The Social Factor in the Life of the Successful Physician;" Dr. O. M. Wiseman, Zanesville, secretary of the Muskingum County Medical Society, on "Our New Doctors;" Dr. R. H. Grubb, Xenia, secretary of the Green County Medical Society, on "How Does Postgraduate Study Help the County Medical Society?" and Dr. N. Worth Brown, Toledo, secretary of the Toledo-Lucas Academy of Medicine, on "How Does Postgraduate Work Help the City Medical Society?" comprised the afternoon's program. The large attendance and the evident value of the meeting proved most encouraging and it is probable that meetings for conference and mutual helpfulness will be held regularly.

PENNSYLVANIA.

Consumptive Camps.—The senate approved the appropriation of $600,000 for sanatoria for indigent persons infected with incipient tuberculosis.

Anti-Vaccination Bill.—A bill to permit the admission to schools of pupils whose physical condition makes vaccination dangerous to their health was passed finally by the senate, May 7.

Regulation of Marriage.—The senate passed the bill to prohibit marriage on the authority of licenses issued more than 30 days prior to such ceremony, providing that no marriage licenses shall be issued unless the parties shall first give certain information, and requiring this information to be certified to the department of health.

Free Patients Barred.—It is stated that the White Haven Hospital for Consumptives will receive no more free cases after June 1. The cause is said to be due to want of funds and because the state appropriations during the past several years have not been sufficient to allow the institution to continue to receive the great number of poor patients applying for admission.

For Hospital Investigation.—The House of Representatives, May 6, adopted a joint resolution providing $20,000 for an investigation of the expenditures by asylums, hospitals and all semi-public institutions which receive state aid. The commission will report at the next session, suggesting new laws to govern the appropriations.

Appropriations for Hospitals.—The following appropriations were presented to the senate and approved by the house: Jefferson Hospital, Philadelphia, $300,000; Douglass Hospital, Philadelphia, $32,000; Bellevue Hospital, $15,000; Warren State Insane Hospital, $250,000; Harrisburg Hospital, $53,500; Ridgway Hospital, $15,000; Philadelphia Lying-in Charity Hospital, $20,000; Philadelphia Home for Aged Veterans, $23,000; Wills Eye Hospital, $70,000; Garrettson Hospital, $42,500; Philadelphia Sanitarium, $5,000; Philadelphia Maternity Hospital, $6,000; St. Mary's Hospital, $30,000; St. Vincent's Home, $10,000; West Philadelphia Hospital for Women, $10,000; Philadelphia Gynecean Hospital, $25,000; Kensington Hospital, $15,000; St. Christopher's Hospital, $20,000; Philadelphia Home for Incurables, $45,000; Coatesville Hospital, $17,500; Easton Hospital, $30,000; State Hospital, Hazelton, $45,500; Williamsport Hospital, $65,000; Lebanon Hospital, $16,502; Chester County Hospital, West Chester, $16,000; State Hospital, Scranton, $166,878.74; Phoenixville Hospital, $15,000; York Hospital, $20,000; Norristown Hospital, $32,000, and Danville Hospital for the Insane, $429,300.——By the will of the late Rev. Samuel A. Heilner the Methodist Hospital, Philadelphia, will receive $10,000.

Philadelphia.

Interne Examination.—An examination for positions as resident physicians in the Philadelphia Hospital will be held June 4. The examination is open to any medical graduate.

Jefferson Alumni Announcement.—The General Alumni Association of Jefferson Medical College announces a meeting at Atlantic City during the session of the American Medical Association. The annual business meeting will be held in the college June 1, and the annual banquet will be held in the Bellevue-Stratford the same day.

The New Jefferson Medical College Hospital.—The dedicatory exercises of the new Jefferson Medical College Hospital, which has just been completed at a cost of $1,500,000, will be held June 7. A picture of the building appeared in THE JOURNAL, May 4. Addresses will be delivered by Hon. William Potter, president of the board of trustees; by Dr. William H. Welch, professor of pathology in Johns Hopkins University, representing medical science, and by Dr. J. Chalmers Da Costa, professor of surgery in Jefferson Medical College, representing the faculty and alumni.

Gifts and Bequests.—Mr. Stephen Green, ex-president of the board of trustees of the Methodist Hospital, has presented a building to that institution to be used as an isolation ward. The building is to be one story high, of brick and terra cotta and will be erected at a cost of $6,000.——By the will of the late John Simmons the Methodist Hospital will receive $5,000 for a free bed to be known as the "John Simmons Bed."——In memory of the late Theodore Spencer, vice-president and general manager of the Bell Telephone Company, the employés of the company have endowed a free bed in the Pennsylvania Hospital.

Philadelphia to Entertain.—Intending visitors to the meeting of the American Medical Association at Atlantic City will benefit by many events planned to occur in Philadelphia before and after the Atlantic City meeting. Specially arranged series of clinics will be given at all of the teaching institutions, hospitals, etc., on June 3, 7, 8 and 12. The dedicatory exercises of the new Jefferson Hospital will be held June 7. The Medical Club of Philadelphia will entertain the retiring and newly elected presidents of the American Medical Association June 7 at a reception at the Bellevue-Stratford.

Personal.—Dr. and Mrs. Wharton Sinkler sailed for Europe May 11.——Dr. William S. Newcomet has been elected president of the Oncologic Hospital, and Dr. Charles W. Sheppard was elected assistant physician to the same institution.——Dr. Charles Nassau has been appointed demonstrator of applied anatomy in Jefferson Medical College, and Dr. Hoffmann assistant demonstrator.——Dr. Albert E. Roussel has been honored by the French government with the decoration of the purple ribbon, which confers on the holder the honorary title *"Officier de l'Académie."*——Dr. George B. McClellan, professor of applied anatomy in Jefferson Medical College, was presented with a silver case by his students, May 8.

Bureau of Health Report.—The report of the bureau of health for March shows that in the division of medical inspection 3,720 inspections were made, excluding schools; 615 fumigations were ordered, and 63 cases were examined for special diagnosis. The medical inspectors made a total of 5,301 visits to the different schools, and of this number 683 children were excluded from school. The inspectors collected 371 cultures, made 130 injections of antitoxin and performed 231 vaccinations. During the month 2,613 deaths and 2,392 births were reported. In the division of milk inspection 7,496 examinations were made, which comprised 159,755 quarts of milk, 834 of which were condemned. The report of the bacteriologic laboratory of the bureau shows that 1,653 diphtheria cultures and 560 specimens of suspected typhoid blood were examined; 865 bacteriologic examinations of milk and 147 bacteriologic examinations of sputum were made; 6 disinfection tests were performed and 2,700,500 units of antitoxin were distributed throughout the city.

Treated the Sick for 156 Years.—On May 6 the contributors of the Pennsylvania Hospital held their one hundred and fifty-sixth annual meeting. The Pennsylvania Hospital was the first hospital established in America, and at a period when there were but few such establishments in England or continental Europe. Public opinion had been prepared for it by Benjamin Franklin, who had written in his newspaper of its utility and desirability, and whose connection with the assembly enabled him to secure the passage of an appropriation of £2,000 for its foundation, conditioned on the movers securing a like amount. The plan for the hospital was drawn in London. Franklin was not himself the projector of the hospital. It had its origin in the mind of Dr. Thomas Bond. The annual report of the hospital shows that the number of patients admitted to the receiving wards during the year was 27,660, of whom 4,100 were transferred to the wards. The report of the out-patient department shows that 10,861 surgical cases were treated, 2,345 medical, 2,015 eye, 612 ear, 1,216 nose and throat, 424 gynecologic, 47 mental and nervous, 1,388 dermatologic, in all 18,908. The total number of visits in the out-patient department was 60,631. The total expenses of the hospital for the sick and injured were $152,124.47, or $9,339.01 more than the expenditures of last year.

Pathological Society Semi-Centennial.—The Pathological Society of Philadelphia commemorated the fiftieth anniversary of its founding May 10 and 11. The exhibition meetings began May 9 and continued until May 11. The formal exercises were opened by the president, Dr. W. M. Late Coplin, at 10 a. m., May 10, when the society went into scientific session, a report of which will be found in this issue under Society Proceedings, page 1709. At 7 p. m. a dinner, at which 157 covers were laid, was held in the Clover room of the Bellevue-Stratford. The following committee had this dinner in charge: Drs. W. M. Late Coplin, Allen J. Smith, Joseph McFarland, Warfield T. Longcope, Courtland Y. White, Alfred Stengel, David L. Edsall, David Riesman, J. Dutton Steele and Albert P. Francine. Dr. George E. de Schweinitz of the University of Pennsylvania was toastmaster and called on the following to answer to the toasts of the evening: Dr. S. Weir Mitchell, Philadelphia, "The Founders of the Pathological Society;" Dr. William H. Welch, Johns Hopkins University, "The Pathologic Era in Medicine;" Dr. J. Collins Warren, Harvard Medical School, "The Surgeon and Pathologist;" Dr. Simon Flexner, Rockefeller Institute, "Experimental Pathology," and Dr. Alfred Stengel, University of Pennsylvania, "The Pathological Society of Philadelphia." Informal toasts were responded to by Dr. Reginald H. Fitz, Harvard University; Dr. George Dock, University of Michigan; Dr. Frank Billings, University of Chicago; Dr. Alonzo E. Taylor, University of California, and Dr. Abraham Jacobi of New York. The guests of the society were: Drs. Reginald H. Fitz, president Congress of Physicians and Surgeons, professor of medicine, of Harvard University; J. Collins Warren, Harvard University; Abraham Jacobi, New York; Simon Flexner, Rockefeller Institute; George Dock, University of Michigan; William H. Welch, Johns Hopkins University; Frank Billings, University of Chicago; Fred G. Novy, University of Michigan; Frank B. Mallory, Harvard University; Alexander Blackader, Montreal, Canada; Wooda Hutchinson, Redlands, Cal.; James Ewing, Cornell University; Alonzo E. Taylor, University of California; Philip K. Brown, University of California; Richard M. Pearce, Albany, N. Y.; Milton J. Rosenau, Marine Hospital, Washington, D. C.; James R. Hunt, New York City; H. M. Christian, Harvard Medical School; Robert B. Greenough, Boston; Herbert C. Moffitt, University of California; J. Collins Warren, Jr., Boston; Philip Marvel, Atlantic City, N. J.; Richard O. Reeve, Toronto; Edmond Souchon, Louisiana, and Joseph H. Pratt, Boston.

SOUTH DAKOTA.

Personal.—Dr. F. Arthur Van Buren, Lead, has resigned his position in the Home State Hospital.——Dr. Clark B. Alford, Huron, has retired from practice on account of failing health.

Sanitarium Established.—A number of the physicians of the Black Hills have formed an organization for conducting a sanatorium and hospital at Hot Springs. A residence with 26 rooms has been leased, which will be converted into a sanatorium and properly equipped.

State Board Appointments.—The governor has appointed Dr. William H. Lane, Miller, a member of the State Board of Health, and Drs. Frederick W. Freyburg, Mitchell; Joseph M. Walsh, Fort Pierre, and Leslie G. Hill, Watertown, members of the State Board of Medical Examiners.

District Society Meeting.—At a meeting of the Fifth Councilor District Medical Society, held at Madison, Dr. Lars J. Hauge, Howard, was elected president; Dr. Frederick O. Kap, Winfred, vice-president; Dr. Henry H. Freudenfeld, Madison, secretary-treasurer, and Dr. Alonzo E. Clough, Madison, censor.

TENNESSEE.

Commencement.—At the annual commencement exercises of Chattanooga Medical College, Medical Department, Grant University, April 29, Hon. Henry Clay Evans delivered the address of the evening, Dr. G. Manning Ellis spoke on behalf of the faculty, and Dr. S. Holtzclaw delivered the valedictory.

Charter Asked For.—The Baptist Memorial Sanitarium Association, Memphis, has applied for a charter. The organizers wish to erect a building to cost $250,000, directly east of the College of Physicians and Surgeons, to be used as a hospital building. The site for the hospital was donated by the college, which has also pledged $25,000 for the equipment and maintenance of the hospital. In return the college is to have exclusive clinical facilities at the hospital.

VERMONT.

Analyses at State Laboratory.—The pure food law has caused a great increase in the samples of food, milk and liquors sent to the state laboratory at Burlington for analysis. More than 1,000 samples were examined during March.

Personal.—Dr. Edward O. Whipple, Danby, is still in active practice, although in his eighty-seventh year.——Dr. Clarence F. Ball has been appointed health officer of Rutland, vice Dr. R. Halford Miner, resigned.——Dr. Everett E. Potter has resigned as selectman of North Pownal.——Dr. Joseph W. Jackson, health officer of Barre, has resigned.

WASHINGTON.

Elections.—The Asotin County Medical Association at its annual meeting, held in Clarkston, elected the following officers: President, Dr. Lafayette Woodruff, Asotin; vice-president, Dr. Paul W. Johnson, Clarkston; secretary, Dr. Isaiah U. Temple, Clarkston; treasurer, Dr. Stephen D. Brazeau, Asotin, and censors, Dr. David H. Ransom, Clarkston; John S. McElvain, Anatone, and Henry C. Fulton, Asotin.

Hospital Notes.—The Sisters of Providence, Seattle, are about to erect a new hospital, to cost not less than $300,000.——Drs. Adelbert J. McIntyre, Franklin L. Carr and F. McDonald are about to build a hospital at Hoquiam, to cost $30,000.——Old Fort Spokane is to be transformed into a sanitarium for Indian children from the Spokane and Colville reservations as well as the reservations in eastern Washington and northern Idaho.——The trustees of the Children's Orthopedic Hospital, Seattle, who have already $20,000 in the treasury toward the hospital, have decided to increase the cost of the building to $50,000. A site for the institution has been donated by Samuel L. Crawford.

WISCONSIN.

Smallpox.—Smallpox of mild type is reported to be epidemic at Grand Rapids.——The public schools of Royalton, which had been closed two weeks ago on account of the prevalence of smallpox, were reopened April 18.

Personal.—Dr. W. C. Winters has been appointed pension examining surgeon at Augusta, vice Dr. Ernest M. Adams, resigned.——Dr. Wendell A. Anderson has been elected mayor of La Crosse.——Dr. John E. Meany has been elected health officer of Manitowoc, vice Dr. Max Staehle.

Medical College Urged.—At a joint hearing by the committees on education of the senate and assembly, April 9, the

measure providing an annual appropriation of $50,000 for the establishment of a college of medicine at the University of Wisconsin, was discussed. The president of the university and the chairman of the State Board of Health declared that the University of Wisconsin is the only state university of importance that does not provide adequately for students who desire to study medicine.

GENERAL.

Honors to Americans.—The Russian Surgical Society, at its twenty-fifth anniversary meeting in St. Petersburg, May 9, elected Dr. Nicholas Senn, Chicago, and Dr. William H. Watson, Utica, N. Y., honorary members.

Raise Money for Hospital.—The society women of Monterey, Mexico, cleared $8,000 in the fête given April 27 and 28 in the Porfirio Diaz Alameda. This sum will be given to support the San Vincente De Paolo Hospital.

Grand Island Surgeons Meet.—At the annual meeting of the Society of Surgeons of the St. Joseph & Grand Island Railway, held in St. Joseph, Mo., April 18, Dr. B. Pearne Hatch, Beattie, Kan., was elected president; Dr. George A. Birdsall, Alexandria, Neb., vice-president, and Dr. Luther A. Todd, St. Joseph, Mo., secretary-treasurer. The next meeting will be held in St. Joseph in June, 1908.

Hospital Car.—The Erie Railroad Company has put in service a hospital car, to be used primarily for employés of the railroad in case of accident, and also as an adjunct to the equipment of wrecking trains. The car is 40 feet long, fitted with six-wheel trucks, made almost entirely of steel, with a ward room accommodating 11 patients and furnished with lavatory and toilet. It also has an operating room thoroughly equipped.

Warning Concerning Magazine Solicitor.—A Boston correspondent states that a number of physicians in his vicinity have been victimized by a proposition to supply the London *Graphic* for their reception rooms for the cost of the postage, viz., $1.04. When none of the copies were forthcoming our correspondent wrote to the alleged headquarters in New York City (International Foreign News Co., Washington Square), but his letter was returned to him undelivered.

Navy Medical Bulletin.—The Navy Department has begun the publication of a quarterly, known as the *United States Naval Medical Bulletin*, issued for the information of the naval department of the service. It is limited to professional matters as observed by medical officers at shore stations and on board ship in every part of the world, and principally to the physical welfare of the navy personnel. The first issue appeared in April and contains special articles on "The Gross Pathology of Samoa, with Comments on Sanitary Features and Treatment," by P. A. Surgeon A. M. Fauntleroy; "A Preliminary Note on Flagellates," and a report of a case of "Tropical Febrile Splenomegaly," by Assistant Surgeon H. W. Smith; also clinical notes and comments on medical progress and current events.

Smallpox in the Philippines.—Dr. V. C. Heiser, chief quarantine officer, reports that a few sporadic cases of smallpox continue to occur in Manila. An investigation of the cases usually shows that the infection was contracted in one of the provinces in which the population has not yet been completely vaccinated. The crew and passengers detained in quarantine at the Mariveles quarantine station, on account of a patient with smallpox, who was removed from the steamer *Ban Yek*, on which they were traveling, were held for 14 days, being released Feb. 22, 1907. As a precautionary measure all the troops were vaccinated, as well as all persons in the immediate vicinity of the place in which the troops were stationed. So far no case which could be diagnosed as true smallpox has made its appearance.

Special Quarantine Regulations for Fruit Vessels.—As a concession to vessels engaged in the fruit trade, provision has been made in the quarantine regulations, according to the reports of the U. S. Public Health Service, to obviate the injurious detention of perishable cargoes in the southern ports. While these regulations are stringent they do not impose an embargo on the fruit traffic. The success of the new regulations is dependent on the reliability of the information as to health conditions at the various ports from which the vessels come. The government, therefore, reserves the right, when dissatisfied with the information furnished, to recall from such a port the medical officer there detailed. In such a case the special certificates required could not be issued and the vessel on arrival would have to be subject to the general quarantine regulations.

Health of the Isthmus for March.—Col. W. C. Gorgas, chief sanitary officer, reports that the general health of the Isthmus was excellent during March. The number of men constantly sick among the employés has decreased steadily since August, 1906, the rate for March being 19.40. This, says Gorgas, is as low as they can ever hope to get it. Among the 4,600 American whites there were only two deaths. Among the American women and children living in commission quarters there were no deaths and very little sickness of any kind. Pneumonia was the disease which caused the greatest mortality; during the month it caused 53 deaths, all among the negro employés. The negroes showed the highest mortality and the American whites the smallest. No case of yellow fever has occurred in the Isthmus since May, 1906. There were no quarantinable diseases during March.

Academy of Medicine Election.—The Academy of Medicine, formed at Springfield, Mass., with over 200 charter members from western Massachusetts, Vermont and New Hampshire, which we mentioned on page 428, Feb. 2, 1907, has elected the following officers: Dr. Walter A. Smith, Springfield, president; Drs. John A. Houston, Northampton, and Ralph H. Seelye, Springfield, vice-presidents; Dr. Joel I. Butler, Springfield, secretary; Dr. Harvey W. Van Allen, Springfield, treasurer; Drs. Oscar W. Roberts, Springfield, Oliver W. Cobb, Frederick W. Chapin, Springfield, Edgard H. Guild, Springfield, and Walter R. Weiser, Springfield, board of directors, and Drs. Theodore S. Bacon, Springfield, James B. Atwater, Westfield, Louis H. Clark, Holyoke, and Frederick B. Sweet, Springfield, censors. The Academy expects to establish a graduate course in medicine and to furnish a home for medical clubs and societies.

Seeking National Health Department.—The committee of one hundred, appointed by the American Association for the Advancement of Science to further the establishment of a national department of health, met at New York City, April 18, and organized by the adoption of rules, the election of officers, and the appointment of an executive committee. Prof. Irving Fisher, New Haven, presided as the temporary chairman and was subsequently elected president. Ten vice-presidents were elected, as follows: President Charles N. Eliot, Harvard University; Felix Adler, New York; Dr. William H. Welch, Baltimore; Rev. Lyman Abbott, New York; President James B. Angell, University of Michigan; Miss Jane Addams, Chicago; Hon. Joseph H. Choate, New York; Rt.-Rev. John Ireland, St. Paul; Hon. Ben. B. Lindsey, Denver; Hon. John D. Long, Boston. Mr. Champe S. Andrews was elected secretary. Prof. Irving Fisher, Dr. Thomas Darlington, Prof. J. P. Norton, Dr. John S. Fulton, Dr. Richard C. Newton, Prof. F. F. Westbrook and Champe S. Andrews were elected executive committee to further the establishment of a national department of health. The committee on publicity is to spread information through the public press and otherwise. At a meeting of the executive committee Dr. Charles A. L. Reed told of the work done by the American Medical Association in advocacy of a national department of health. He urged that a department, not a bureau, should be sought. The Council on Medical Legislation of the American Medical Association is in communication with a physician in each county in the United States, who is laboring in the interest of this work and has an index of the men in each county who are active in politics. As secretary of this council, he offered these resources to the executive committee. The official office of the secretary of the committee of one hundred was established in the office of the Public Health Defense League at 105 East Twenty-second Street, New York.

CANADA.

Hospital News.—The new hospital at Saskatoon, Sask., is to be conducted by the Grey nuns.——Much success is attending the endeavor to establish in various hospitals in Canada memorial cots to the memory of the late Lady Grenfell, daughter of Governor-General and Lady Grey.

New Medical Laboratory for Queen's University.—Lieut.-Gov. Mortimer Clark of the province of Ontario, will lay the corner-stone of the new medical laboratory of Queen's University, Kingston, Ont., April 28. The Ontario government contributed $50,000 toward the erection of this new medical building.

FOREIGN.

Smallpox in China.—Acting Assistant Surgeon Ransom reports that smallpox is prevalent in Shanghai, Nanking and Tientsin. The figures obtainable, he states, can only be taken as an index of the prevalence of the disease and represent but a small percentage of the number actually suffering from smallpox.

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Joint Meetings of Medical and Legal Societies.—At a number of places in Germany, physicians have taken the initiative and summoned a joint conference of lawyers and physicians to discuss various questions of forensic medicine, especially criminal psychology. Arrangements are being made to hold these joint conferences quarterly, as they are proving extremely instructive and valuable.

Gratitude for Private Instruction.—A. Bienfait of Liege, Belgium, found time outside of his duties as general practitioner, neurologist and secretary of the *Gaz. Méd. Belge*, to deliver a course of lectures on the pathology of the nervous system. The thirty or more physicians who attended the lectures descended on his house one evening and presented him with an up-to-date Roentgen equipment as a token of their appreciation of his kindness.

Bequest for Convalescent Home.—The great benefits of a home for patients during convalescence are appreciated by physicians more than any one else, and several physicians have left money for that purpose in their wills in the last few years in various countries. The latest is Dr. Buhl of Heidelberg, whose will bequeaths his property to the university of Heidelberg, subject to a life pension for his wife. After her death, about $75,000 becomes available for the construction of the home and about $50,000 for its maintenance.

International Anti-Alcohol Congress.—The last anti-alcohol congress was held at Budapest in 1905. The next will convene at Stockholm, July 28 to Aug. 3, 1907, the eleventh international gathering, to discuss the evils of alcohol. Communications for the congress are to be sent to Prof. C. Wallis, Tegnergatan 2, Stockholm. The crown prince will preside, and a large number of communications have already been received, including those on "Alcohol and Responsibility;" "The Burdens Imposed on the Community by Alcohol;" "Alcohol in the Rural Districts;" "Alcohol in Lapland," etc.

Organization of the Profession in Bohemia.—THE JOURNAL has already referred to the recent organization in German Bohemia of a society with the same aims and purposes as the German *Leipziger Verband*. It is doing good work and has accomplished valuable results already in its brief span of existence. A national election is impending, and the society has issued a circular which has been sent to every physician in the country acquainting him with matters of importance to the profession depending on his vote and influence. By this concerted action it is hoped that legislation promoting public health and the welfare of the profession can be secured.

Glasgow Maternity Hospital.—Like almost every other hospital in Glasgow, Scotland, the Maternity Hospital is appealing to the public for funds to complete the additional buildings in course of erection. This hospital was originally started in 1834 and the present building was erected in 1840. For a number of years both patients and students have been crowded. According to the *Lancet*, the directors believe that the buildings now being constructed will enable them to meet the pressure on their present inadequate accommodation for patients and at the same time to provide a school thoroughly equipped for the teaching of practical obstetrics and gynecology. Toward the cost of the new buildings and equipment $200,000 has been subscribed and $175,000 more is required.

Surgical Congress of the Northland.—The Nordisk Kirurgisk Forening will hold its annual congress at Christiania, Aug. 7-10, 1907. The subjects appointed for discussion are "Resection of the Large Intestine;" "Indications, Technic and Results of Prostatectomy," and "Treatment of Inflammatory Affections of the Adnexa." Bloch and Borelius will open the discussion on the first topic, and A. Gunderson of La Crosse, Wis., will deliver the address on the second subject, while the third will be introduced by Engstrom and Kaarsberg. Further particulars can be learned from the president, K. Jervell, Christiania, or the secretary, Dr. Tscherning, Copenhagen. Borchgrevink announces a communication on the subject of "Ambulant Extension Treatment of Fractures of the Upper Extremities."

Consultations for Infants in Every French Town.—The French minister of the interior has notified all the prefects throughout France that they must organize a "mothers' dispensary" or consultation for infants, similar to the one founded by Budin in Paris, which has been frequently mentioned in these columns. Budin devoted much time and energy to the extension of the system of "nursling consultations," and the sickness and death rate among infants was materially reduced wherever they are introduced. Since his recent death, testimony in this line has been accumulating more and more, until now the French authorities have decreed the universal adoption of the system. Budin actually gave his life for the cause, as he died of pneumonia contracted on a trip to a neighboring city to lecture on the subject.

The Cocain Evil in Calcutta.—The Indian correspondent of the *Lancet* states that the cocain habit has obtained a great hold on the lower classes in India. The *Lancet's* correspondent states that this is the more remarkable, as but a small part of the population drinks tea or coffee. In 1900 the sale of cocain was limited to medicinal purposes, and only certain persons were granted licenses to sell it. In 1902 the possession of more than 60 grains was made illegal. Notwithstanding the strict rules against importation the drug is said to find its way into the country from Germany through unscrupulous dealers in the native states and in the little strips of foreign territory which remain in India. It is said that the principal trade is through Delhi. The profit is large and the cocain is never sold pure, being mixed with phenacetin or other drugs.

Bier Succeeds von Bergmann in Chair of Surgery at Berlin.—A cable dispatch states that August Bier has been appointed professor of surgery in the University of Berlin, to succeed the late von Bergmann. It has been known for some weeks that the choice wavered between Bier and von Eiselsberg of Vienna. The latter was called to Berlin some years ago, but declined, as his mother was a loyal Viennese, and he did not wish to leave her and she would not leave Vienna. She has since died. THE JOURNAL published April 28, 1906, page 1299, a portrait of Bier and a brief sketch of his career. The cable dispatch adds that Bier's summary dismissal of von Bergmann's assistants as his first official action has aroused much unfavorable comment. He is only 46 at present, but has occupied in turn the university chairs of surgery at Kiel, Greifswald and Bonn.

Physicians Win in Long Conflict at Gera.—One of the first cases in which the German *Leipziger Verband* was called on for its services after it was organized was at Gera. The medical officers of a certain sickness insurance society protested against the addition to the medical force of a non-qualified "nature healer," directly contrary to their contract with the society. As the superintendent of the society paid no attention to their protests, the physicians resigned, and the *Leipziger Verband* championed their cause. The society held back half of the last quarter's payments due the medical officers, and the latter sued for the amount due them. The case after four years has finally been decided in favor of the physicians. The judge stated that the society had acted contrary to its contract—not the medical officers—and ordered the society to pay the amount still due the physicians, with interest to date, and also imposed the costs of the suit on the society.

International Congress on Stomatology.—An international congress of stomatology has been organized to meet at Paris Aug. 6 and 7, 1907. The executive committee includes prominent dentists from various countries, and an exhibition of appliances and objects of historical and educational interest will be held in connection. The official language of the congress is French, but English and German will also be admitted if the article presented is followed by a brief summary in French. It is stated also that Esperanto will be allowed in the discussions. The international congress is to be preceded by a national French Congress of Stomatology, arranged in honor of the twentieth anniversary of the French Société de Stomatologie. The chief aim of this national congress, it is said, is to demonstrate and emphasize that a general medical education is indispensable for the practice of stomatology, as well as for laryngology and ophthalmology. Stomatology is as much a medical and surgical specialty as these other branches of medicine. Further details can be obtained from the secretary, M. Chompret, 182 Rue de Rivoli, Paris, or from Dr. Eugene S. Talbot, 103 State Street, Chicago.

Alliance for Social Hygiene.—The Alianza de Higiene Social is a newly organized society in the Argentine Republic whose aim is to coordinate and promote all efforts in favor of public health and hygiene. The official program includes measures to combat "averia" (the newly coined Spanish term for venereal disease, similar to the French "avarie"), tuberculosis, alcoholism, malaria and infantile mortality; to promote the care of child life in every way; to improve the dwelling places and food of the poor; to promote physical training and to organize centers for the education and protection of the public, with exhibitions and permanent museums of everything relating to puericulture, hygiene, etc. The society also intends to use its influence for the adoption of compulsory insurance against sickness, accidents and old age. E. R. Coni is the leading spirit in the movement, and is making every effort that the society may be able to present a fine showing of tangible results when the world is invited to help the republic celebrate in 1910 the anniversary of the independence of Argentina. The *Semana Medica* for March 21 contains his address on the

subject presented at the Third Latin-American Medical Congress recently held at Montevideo. Coni was the president of the second congress.

A Representative Board of Health.—The national board of health for the grand duchy of Baden has recently been enlarged to make it more representative. It has hitherto consisted of representatives of the medical faculties of the two universities, the president of the national medical society and several members appointed by the national authorities. The additional members now to be added are representatives from the departments in charge of the water supply and roads, the presidents of the university institutes of hygiene and the technical college at Carlsruhe; three members instead of one to be appointed as representatives of the medical profession, and one each from the dental, veterinarian and apothecaries' national associations. Besides these the organized employers of labor and also the wage earners are to have each a representative. The members are elected for a four-year term and serve without remuneration, except that mileage and $3 a day are allowed to those who do not live in the city where the meetings are held. The *Deutsche med. Wochschr.* adds to the above that the minister of the interior is *ex officio* president of the board, and he can invite expert talent from outside at any time to discuss questions that may arise.

Antiquackery Legislation Adopted in Germany.—The German authorities are on the point of adopting a decree applying throughout the empire certain regulations requiring that all persons—not registered physicians—who make a practice of treating the sick, must notify the police authorities when they locate in a place, and must give information in regard to their "practice," and must keep a set of books. They are forbidden to use "distant treatment," to treat contagious diseases, especially venereal diseases, and to use narcotics, hypnosis, suggestion, etc. The right to practice can be refused to persons who have previously been convicted of misdemeanors or crimes, or have been deprived of their civil rights for any cause. The right to practice can also be withdrawn at any time for the same reasons or for injury from their practices. Penalties up to $375 and imprisonment can be enforced. Our German exchanges state that it is a pity that the regulations do not entirely forbid the treating of the sick by unqualified persons, but even as proposed, they represent great progress in the antiquackery movement. The question of "secret medicines" is next to be taken up, and a bill similar to the regulations in force in Austria is now being discussed which prohibits public advertising of such remedies and the importation of certain "secret remedies."

Cancroin Suit Decided.—THE JOURNAL mentioned at the time the suit brought against the firm of E. Merck by A. Adamkiewicz, formerly professor at Cracow, inventor of cancroin, a remedy for cancer. He signed a contract with the Merck firm for the production, advertising and sale of the remedy, the contract to run for twenty-five years, with the proviso that if the firm lost money by the deal they could withdraw from the contract at the end of five years. This they did in 1896, when Adamkiewicz at once brought suit for $60,000 damages, the penalty for non-fulfillment of contract, claiming that the firm had not fulfilled its contract, as it had failed to advertise and push the remedy in such a way as to bring it duly before the public. The Merck firm stated that it had lost money on the contract and that it had been deceived in respect to the curative value of the remedy. Professors von Eiselsberg and von Neusser testified that cancroin is merely a preparation of neurin, and that the after history of cases published by Adamkiewicz as "cures of cancer" showed that the remedy had not materially retarded the fatal progress of the disease. It was first put out as a secret remedy, and Adamkiewicz's methods of procedure led to his being dropped from the rolls of the Vienna Medical Society. The judge promptly decided in favor of Merck.

Congress of German Orthopedic Society.—The sixth annual meeting of this society was held at Berlin April 2, with Bardenheuer in the chair. The remote results of plastic operations on the tendons was one of the topics presented by various speakers. Hoffa exhibited a number of patients to show the fine results when the operation on the tendons was preceded by careful and prolonged correction or over-correction of the deformities. He prefers total to partial transplantation of the tendon, and thinks that suture of the tendon to the periosteum gives sometimes a firmer hold and better results than suture of tendon to tendon. In the after-treatment a plaster cast must be worn for at least 6 weeks and then a splint, with massage and active gymnastics. If there is enough reliable muscular tissue on hand, permanently good results may be counted on. Schanz reported that plastic tendon operations on the quadriceps had given him exceptionally fine results. Vulpius stated that he had had better results from transplantation of tendon on tendon. Lorenz emphasized the necessity for prolonged preliminary treatment with overcorrection. This will show the muscles best adapted for transplantation. In quadriceps paralysis he has found that osteoclasis of the femur helped very much in overcoming the functional obstacle. Fat embolism after bloodless operations was discussed also. Some of the speakers warned against attempting to accomplish too much at a single sitting. It is much better to proceed gradually. Under the age of 14 the danger of fat embolism is comparatively slight, as the bone marrow contains very little fat. Vulpius, however, stated that he had had 2 fatal cases in children under 10. Lorenz remarked that the previous use of a wheeled chair, by inducing extreme atrophy of the bones, causes a predisposition to fat embolism and other complications. Bardenheuer expatiated on the benefits of extension and early active movements to prevent ankylosis of the adjacent joints in case of fracture of a long bone.

German Congress for Internal Medicine.—The twenty-fifth German Congress for Internal Medicine met at Wiesbaden, April 15, and the silver jubilee was celebrated by the election of 15 honorary members and by an inaugural address from E. von Leyden, the founder of the Society for Internal Medicine and of the congresses. The first subject discussed was "Neuralgia and Its Treatment." Schultze referred to arteriosclerosis as an occasional source of severe neuralgia, and stated that in sixteen cases of rebellious neuralgia of the first branch of the trigeminal nerve he had found the frontal sinus diseased in six instances. He also mentioned that brachial neuralgia is sometimes observed in the initial stage of paralysis agitans. Physical measures, he said, are more effectual than drugs, although aconitin has sometimes given good results. In some cases massage does wonders, in others electricity, in others application of heat, and Bier's hot air massage. Bier has reported the cure by hot air massage of twelve out of twenty patients who had entered the hospital for operative treatment of neuralgia. The hot air massage was described recently in THE JOURNAL on page 653. In some cases Schultze has cured rebellious neuralgia with hot sand baths, Scottish douches, etc. He has abandoned operative stretching of the nerve, but finds orthopedic stretching sometimes useful. Schlösser reported the present status of the treatment of neuralgia by local injection of 70 or 80 per cent. alcohol. This induces degeneration of the nerve, and the segment involved is absorbed, although the neurilemma remains intact, the effect being a medicinal resection of the nerve. Later it regenerates from the periphery toward the center. He has thus operated on 202 patients with chronic neuralgia, injecting from 1 to 4 c.c. of alcohol. In case of sensory nerves he injects from 2 to 4 c.c. of alcohol at different points, trying to destroy the nerve over as large an extent as possible. With motor nerves the aim is to induce paresis, and small amounts are injected through the cannula left in place, repeating every five minutes until there is paresis. In 38 cases of sciatica recurrence was observed in 2 patients after 3 or 6 months, the others have been cured to date; permanent cure has resulted in 16 cases of occipital, 8 brachial, 1 intercostal and in 2 of lancinating neuralgia in patients with ataxia. In the 11 cases of facial clonus recurrence followed in 9, but 7 of the patients proved to be hysterics and treatment had been suspended as soon as the hysteria was diagnosed. In 123 cases of trigeminal neuralgia—bilateral in 2—the average duration of the cure has been a little over 10 months. He advocates this "chemical resection" of the nerve as worthy of trial before resorting to such a serious operation as removal of the Gasserian ganglion. (Previous communications on the subject were mentioned in THE JOURNAL, page 1243, of vol. xlvi, 1906.) Lange reported good results from his method of injecting from 50 to 150 c.c. of physiologic salt solution in treatment of sciatica. Patients thus treated should remain in bed for a time. Improvement follows the first injection, and the cure is sometimes complete by the end of the third day. Quincke confirmed his statements and added that experiments on the cadaver had shown that the injections act only on the sheath and not on the nerve, so the technic is simple and easy. Alexander prefers injection of 10 c.c. of Schleich solution; he ascribes the pain to a combination of neuralgia and a myopathy, the muscular affection being generally overlooked. Krause reported the removal of the Gasserian ganglion in 56 cases, and stated that 48 of the patients are alive and free from recurrence to date, but 8

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died during or in consequence of the operation. He has never observed regeneration of the nerve after this operation. Brieger stated that physical measures cure in about 80 per cent. Absolute repose should be enforced in the acute cases; in the chronic forms a course of baths and dietetic measures are useful. Hanau reported great benefit from dry cupping in acute sciatica, and Minkowski from spinal anesthesia. Large doses of methylene blue proved successful in curing infectious neuralgia in von Noorden's experience, especially after influenza. Treupel has found repeated cocainization of the nasal mucosa of great benefit in cases of trigeminal neuralgia, even when the accessory cavities seemed to be entirely sound. Gara asserted that unless the lowest lumbar vertebra is sensitive to pressure there can be no sciatica, as he has found this sign constant in genuine sciatica. Bäumler called attention to the neuralgia due to venous stasis, cured by improving the heart action with digitalis or other heart tonic. His has had occasion to observe neuralgia evidently due to a family tendency, and best combated by dietetic measures. "Edema in Nephritis" was the second subject discussed, and von Noorden emphasized the necessity for discriminating in treating nephritic patients by suppressing salt chlorids in the diet. He had witnessed cases in which reduction of albumin and chlorids in the diet induced great debility while, on return to an ordinary diet, the patients rapidly regained their previous strength. Naegeli of Zurich stated that later experience has confirmed his previous assertions in regard to the prevalence of tuberculous lesions. He found tuberculous lesions in 97 per cent. of 1,000 cadavers, as reported in 1900, and this same proportion has been maintained through all his subsequent investigations and for all classes of society. Honigmann related that at the convalescent home for Russian officers at Wiesbaden 20 patients with serious traumatic hysteria have been under treatment and 23 others with severe neurasthenia. He commented on the fact that there is no record of such traumatic neuroses among the officers after the wars of 1866 and 1870. The above summary is culled from the nearly 6-page report of the congress in the *Semaine Médicale*, April 24—the first journal to appear with an account of the proceedings.

LONDON LETTER.

(From our Regular Correspondent.)

LONDON, April 20, 1907.

Enlargement of the Library of the College of Surgeons.

The library of the Royal College of Surgeons, which is the largest medical library in Great Britain and the largest in Europe, with the exception of the library in Paris, has outgrown the space allotted to it. It now contains 100,000 publications, made up of 60,000 volumes and 40,000 pamphlets. It increases at the rate of 1,000 volumes a year. A large room has been added over the library, which in former years consisted of a suite of apartments occupied by a clerk who lived in the college, a custom no longer followed. This room will be principally devoted to works on public health and official government reports. Thus space has been obtained for another 10,000 volumes.

The Jacksonian Prize.

The Jacksonian prize of the college for 1906 on "The Diagnosis and Treatment of Those Diseases and Morbid Growths of the Vertebral Column, Spinal Cord and Canal, Which Are Amenable to Surgical Operations," has been awarded to Mr. Donald Armour, F.R.C.S. The following subject has been chosen for 1908, "The Pathology and Treatment of Those Conditions of the Colon Which Are Relievable by Operative Measures." The subject for the next triennial prize is, "The Histologic Anatomy of the Lymphatic and Hemo-lymphatic Glands, More Especially with Reference to the Changes Which These Glands Undergo in Acute Infective Processes." Prof. William Wright will deliver three Hunterian lectures on "The Prehistoric and Early Historic Inhabitants of England," on May 6, 8 and 10.

Effective Organized Effort.

The method, adopted largely at the instance of the British Medical Association, of preventing poor-law authorities, friendly societies and others, who contract for medical services obtaining them at rates deemed inadequate, is to form combinations of medical men in the various districts who decide that no one shall apply for an appointment of this kind which happens to be vacant. Warning notices are inserted in the medical journals asking physicians who, being strangers, may know nothing of the battle waged with these contracting bodies, to communicate with the secretary of the local medical society before applying for the post. Sometimes, however, a physician declines to fall in with the combination and takes a proscribed appointment. In the language of the trades unions, he is a "blackleg." His position with regard to his medical brethren is then far from enviable, and he may be treated with all the rigor which trades unions adopt toward non-union workers. In a country district the guardians, who recently appointed Dr. Charlton to the post of medical officer of the workhouse, received a letter from the physicians of the district, who refused to apply for the appointment, as they considered the salary inadequate, stating that they refused absolutely to recognize Dr. Charlton professionally or in any way whatever, either by acting as his deputy or in cooperation with him over any patient. If in any case of emergency additional medical aid should be required by the guardians, the local physicians will not refuse to attend, provided the entire control of the case is for the time being placed in their hands independently of Dr. Charlton. In such cases they will charge such fees as they consider reasonable and adequate. The guardians decided to take no action in the matter, the chairman observing: "Of course, if the doctors refuse to recognize Dr. Charlton, that is a matter of no concern whatever to us."

The Milk Supply.

Public opinion and the government appear at last to be awakening to the perils of the milk supply. A committee of the National League for Physical Education has been formed by Sir Lauder Brunton. This committee has now formed a joint committee with the National Health Society, the Infants' Health Society, and the Liverpool Infants' Life Preservation Committee. The chairman is Sir Frederick Treves. The committee is composed of men chosen from among the experts on milk, including health officers. The object is to secure a universal supply of milk, pure, fresh from the cow and free from disease germs—"clean milk." An annual system of licenses to dairymen, renewable only if their premises are kept in sanitary condition, is recommended. The corporations of the great cities such as Manchester, Liverpool and Sheffield, have already obtained special parliamentary powers to enable them to exclude from their districts the milk of cows suffering from tuberculous udders. Such milk can be sold elsewhere. It is proposed that such powers should be extended to the whole country.

VIENNA LETTER.

(From our Regular Correspondent.)

VIENNA, April 24, 1907.

Distant Treatment by Letter or Telephone.

The Vienna "Aerztekammer" (Medical Council) in one of its recent meetings discussed the question of treating patients without seeing them. It has been brought to the knowledge of the council that in several instances physicians, not quacks, have been asked by patients residing at a distance in the country for professional aid, and these doctors had thought fit to prescribe for diseases, the symptoms of which they could not possibly have found out except by regular examination. The council is of the opinion that such a way of treating is not to be approved of, since the art of the physician is founded on the consideration of the patient as an individual, and the treating of symptoms, instead of the disease, will not add to the dignity of the profession. In a similar way, consultations by telephone, unless the patient be known to the doctor, should be discarded. The council has sent a circular to all members of the profession in Vienna informing them of the resolutions voted, and it proposes to deal summarily with all members complained of in the future, by fining them about $100.

Scarcity of Hospital Beds.

The enormous increase of infectious diseases in Vienna, especially of influenza, measles and scarlatina, during the last few weeks has swamped the hospitals. The number of beds is usually sufficient for ordinary needs, but hundreds of patients were seeking admission to the hospitals and had to be turned away. This condition of affairs was not allowed to last more than five days by the public and the press. The municipality finally consented to open "emergency hospitals," especially for scarlet fever and diphtheria, while non-infectious patients are tended at their homes by municipal doctors and nurses. This system has been in existence only a short time. It is called "Distriktkrankenpflege," and the expense hitherto has been borne by the municipality. In spite of the two new pediatric hospitals, erected quite recently by private donations (the two buildings together can accommodate only 200 children), the scarcity of hospital beds is an undeniable fact. There are, for instance, only 42 beds available for nurslings, with a yearly birth rate of 50,000! These conditions have at last appealed to the conscience of the public.

Pharmacology

TYREE'S ANTISEPTIC POWDER.

Discrepancies Between Facts and Claims—Unfortunate Attempts of Mr. Tyree at Explanation.

A report from the Council on Pharmacy and Chemistry on Tyree's Antiseptic Powder appeared in THE JOURNAL, Oct. 20, 1906. This showed that the preparation, advertised as a "scientific combination of borate of sodium, alumen, carbolic acid, glycerin and the crystallized principles of thyme, eucalyptus, gaultheria and mentha, in the form of a powder," was essentially a mixture of boric acid and sulphate of zinc—approximately four-fifths of the former to one-fifth of the latter. "The carbolic acid, thyme, eucalyptus, wintergreen, etc., if present, are present only in sufficient amount to give the compound a satisfactory odor." As will be remembered, in the correspondence published at that time, Mr. Tyree attempted to explain the discrepancies between his statements and the proven facts by intimating that he had recently changed the formula, and that it was his intention "on or about the first of February to state to the medical profession his reasons for changing the formula," and that the change had been made "a short time ago," at the suggestion of several prominent gentlemen." Since that time, through circulars and other advertisements, Mr. Tyree has attempted to explain the matter in various ways. In his latest circular letter he seems to make a deliberate attempt to mislead our profession and to misrepresent facts to a degree that makes it almost impossible to believe that the circular came from a man who claims to be honorable.

First, however, we shall take this opportunity to publish some matter which we have had in reserve since the first exposé was made last October. When it was realized that Mr. Tyree intended to defend himself by claiming that a change had recently been made in the powder, we took occasion to try to secure some of the preparation that had been on the market for a long time. In this we succeeded very well. From a Chicago druggist one package was bought which had been in the store at least since July, 1902—how much longer is not known. The druggist from whom the powder was obtained bought the drug store in July, 1902, and this powder was on hand at that time, none having been bought since. This particular powder was analyzed by a chemist, who found the composition practically the same as that given in the Council's report, this chemist estimating that it contained approximately 81 per cent. boric acid and 14 per cent. anhydrous zinc sulphate. Bearing in mind that for at least four years and ten months Tyree's Powder has been essentially the same as it is to-day, this letter is very interesting: (The comments in brackets are, of course, ours.)

"J. S. TYREE,
"CHEMIST,
WASHINGTON, D. C.

"April 16, 1907.

"Dr. ———— ————,
"————,

"*My Dear Sir:*—Doctors and medical publications of extreme and prejudicial minds often hold and express opinions in honorable faith, but like all critics, they are not always familiar with the conditions composing their opinions, and are often given to expressing them without complete knowledge of the true motives and facts in the case.

"If you will read an article that appeared in one of the medical weeklies some time ago [THE JOURNAL of the American Medical Association, of course] and which has been copied by several of its offsprings, [not many, we regret to say] relating to Tyree's Antiseptic Powder, you will see that I had previously informed the editor as well as his council of investigators, that at the suggestion of prominent physicians, extensive clinical experimenting [sic] were being made with some slight [! ! !] change in my powder, the object being to develop and extend its usefulness in new lines. [It had already been recommended for about everything,[1]] and at the same time make it more acceptable to the general run of the profession. I also notified this editor that these investigations would not be completed until the first of the present year, after which time these slight [! ! !] changes in the formula of Tyree's Powder would be announced. [It is now the middle of May; when and where were the changes announced?[2]]

"There is nothing new, startling or dangerous in such changes in formulas. The Pharmacopeias and national books of authority are continuously improving their formulas. It is the same with every preparation on the market. [Mr. Tyree, as a nostrum maker, is in a position to know. His plea evidently is: "I am no worse than others."] The apparent difficulty in my case is caused by my exceptional frankness ["exceptional frankness" is good under the circumstances] with the profession in telling them [when and where?] about this improvement before I was ready to announce full details and particulars, or place my improved [sic] powder on the market. Yours very truly,

"J. S. TYREE."

For years Mr. Tyree has been misleading physicians by making false statements regarding the composition of his powder, and regarding its value as a therapeutic agent. When exposed he tries to defend himself and his business by statements and excuses that are worthy of a schoolboy trying to get out of a bad scrape. We would respectfully suggest to him that he either take his wonderful powder off the market, or—which probably would amount to the same thing—tell the truth, and the whole truth, about it.

1. From the circular accompanying a package bought over a year ago, we find the powder recommended for the following conditions: "For Leucorrhea, Gonorrhea, Vaginitis, Pruritus, Ulcerated conditions of the mucous membrane, . . . Scrofulous, Syphilitic and Varicose Ulcers, . . . for Spraying the Nose and Throat, . . . for immediate deodorizing and disinfecting, . . . for prickly heat, poison oak, squamous eczema and other conditions of similar nature. . . . As a deodorant and prophylactic in dental work, . . . for disinfecting offensive cavities, . . . for profuse and offensive perspiration, swelling, soreness and burning of the body and feet. . . . As a delightful toilet preparation after the bath and shaving."

2. Last January the national Food and Drugs Act went into effect; one of its provisions is that the label must not lie. This is not the exact verbiage, but it means the same thing. So, instead of repeating the old false statements, the new label of Tyree's antiseptic powder contains nothing whatever about the composition; the law does not require that it should—unless the preparation contains certain specified drugs. Why is the formula omitted?

Tennessee Pure Food Law a Model.

The Tennessee Legislature has adopted the pure food bill introduced by Dr. W. B. Marr and known as House Bill 141. The bill as adopted is an admirable one and can not but accomplish much good in the state. It is worthy of note by members of the profession interested in pure food bills in other states. A professional lobbyist, whose presence has been noted in other state capitals at the time that similar legislation was being considered, "happened" to drop into Nashville at the time that the bill was before the legislature. He announced that he was a philanthropist, and that his mission in life was to harmonize the medical profession and the various drug interests. "He had the effrontery," says our correspondent, "to ask for an interview with some of the leading physicians of Nashville and to announce that he would address a joint meeting of physicians and druggists." It appears that his efforts were mainly devoted to lobbying against the bill by attempting to bring personal influence to bear on various members of the legislature. Efforts to coerce the local druggists were also futile. Evidently not enjoying the atmosphere of Nashville, the genial philanthropist left before the bill came to a vote. He has doubtless "happened" to go to other state capitals, where pure drug bills are pending.

Regarding the bill itself:

Section 1 provides that it shall be unlawful to manufacture, sell or give away any article of food or drugs which is adulterated or misbranded.

Section 2 defines drugs to include all medicines and preparations recognized by the United States Pharmacopeia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease in either man or animals. Food is so defined as to include all articles used for food, drink, confectionery or condiment, either mixture or compound.

Section 3 defines adulterations in a drug as any deviation from the standard of the United States Pharmacopeia or National Formulary or deviation from the professed standard and quality under which it is sold. Such adulterations are specified as follows:

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The presence of any ingredient deleterious or detrimental to health.

The presence of any substance which would reduce, lower or injuriously affect the quality or strength of the article.

The substitution in any manner, either in whole or in part of any other substance for the substance claimed.

The substitution of any valuable constituent in whole or in part, or the addition of any matter, whereby damage or inferiority is concealed or the addition of any poisonous or deleterious ingredient which may render it injurious to health or the presence of any filthy, decomposed, or putrid animal or vegetable substance or any portion of an animal unfit for use or of any product of a diseased animal or one that has died otherwise than by slaughter.

Section 4 takes up the question of misbranding, which is specified to be:

1. Offering for sale any article under the name of another article.

2. Removing the original contents of a package in whole or in part and placing other matters therein or failing to state on the label the quantity or proportion of alcohol, morphin, opium, cocain, heroin, alpha or beta eucain, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any such substance. This provision does not apply to prescriptions of regularly licensed physicians, dentists and veterinary surgeons when filled for the individuals for whom written, nor to such drugs as are regularly recognized in the United States Pharmacopeia and sold under the brand by which they are recognized.

3. Misbranding, in the case of food, is defined as the imitation or offering for sale of an article under the distinct name of another article; the labeling or branding so as to deceive or mislead the purchaser or purporting that the article is a foreign product when it is not, or where the contents, as originally put up, have been removed, in whole or in part, and other materials placed in such package or the failure to place on the package a label stating the proportion and quantity of any of the above named drugs. Contents must be stated on the outside of the package. The label must bear no statement, design, or device which is false or misleading in any particular. Preparations marked "compound," "imitation," or "blend" may be sold, providing the fact is stated on the label. A guarantee provision for the protection of the retail dealer similar to the section found in the national Food and Drugs Act is found in Section 5.

Section 6 defines the scope of the act, and Section 7 provides for the appointment of a chemist of established reputation and ability who shall be the pure food and drug inspector and who shall establish an office and laboratory in Nashville.

It is noteworthy that this bill contains no exemption clause, such as the druggists in many states are endeavoring to introduce into a bill which is otherwise not objectionable. The exemption clause, however, practically nullifies the bill.

Members of the profession in Tennessee are to be congratulated on the fight which they have made and the victory which they have won. The Tennessee bill is one of the strongest and most praiseworthy which has yet been adopted by any state.

A Wide-Awake Medical Magazine Comments on Labordine.

The report published in THE JOURNAL, March 30, by the Council on Pharmacy and Chemistry on Labordine, was republished in full in the May *Medical World*. Editor Taylor added the following trenchant comment:

"The profession should appreciate the above important service rendered by the national organization, the American Medical Association. We have not advertised 'labordine' this year, and we will never admit it to our columns again. As soon as the Council on Pharmacy and Chemistry published its report on the other acetanilid mixtures (antikamnia, bromo-seltzer, etc.), *The World* immediately republished the same, and it was the only journal besides THE JOURNAL of the American Medical Association which did so for a long time, as most of the other journals, including many of the state society journals, carried the antikamnia advertisement. About a year after the report appeared, most of the state society journals, under pressure, were induced to publish it. Let us see what journals, including state society journals, will suppress this report, for the sake of advertising patronage, present or hoped for. It is strange how a fraud like this could exist for so long by means of the patronage of a learned profession, and not be found out. It is the legitimate field of a national medical organization to make investigations like the above. It is a duty which belongs to a public organization of national scope, rather than to private initiative."

Death from Taylor's Anti-Headache Powders.

Drs. M. J. Sanford and D. V. Van Wagman of Suffern, N. Y., writing independently of each other, report the following case of poisoning from headache powders:

C. M., male, aged 7 years, awoke in the morning complaining of headache. His mother gave him some Epsom salts and a cup of coffee. As he was no better at 9 o'clock she gave him one of "Taylor's Anti-Headache Powders." The boy was given another powder at 10:15 and another at 11 o'clock. Soon after taking the third powder the child complained of faintness and lay down. At 11:45 his lips and tongue became very blue; his face was yellowish and his eyes staring—protruding—and unseeing. He was put on a lounge and apparently went to sleep, as he snored. At 12:15 he commenced to jerk, twitch and scream. The convulsive movements became worse, especially of the right side, and the boy died shortly before 1 o'clock 10 minutes before a physician arrived.

On the box containing the powders and on the circular accompanying it the following is printed:

"Taylor's Anti-Headache Powders. Guaranteed Absolutely Harmless. Contain no Opium, Chloral, Cocaine, Antipyrine, Morphine, Phenacetine, Bromide or Other Injurious Substance.

"Never known to fail in curing Bilious, Sick or Nervous Headache and Neuralgia in a few minutes.

"Directions.—Take one powder dry on the tongue and drink a little water. Repeat if not entirely relieved in twenty minutes.

"None genuine unless Signed W. Scott Taylor.

"The Taylor Drug and Chemical Co., Manufacturing Chemists—Laboratory—Trenton, N. J."

Dr. Van Wagman sent us a box of the powders; examination indicates that they contain as active constituents, acetanilid, approximately 30 per cent., and caffein, approximately 2.5 per cent. Each powder weighs approximately 15 grains and, therefore, contains about 4½ grains of acetanilid.

Personal Liberty and "Patent Medicine."

Although a vast majority of newspaper proprietors still seem to have no regard for the harm they do by allowing fraudulent and misleading "patent medicine" advertisements to appear in their papers, more and more are coming out on the side of cleanliness. A few remarks on the subject of personal liberty in the Detroit *Civic News* work up to a climax that is worth quoting. After remarking that those citizens who are most strenuous for "personal liberty," meaning by that, liberty to make public nuisances of themselves, are likely to protest against "goody-goodies" at the first approach of restrictive legislation, administration, or agitation, the editor goes on as follows:

"'Personal liberty' may involve the right to drink liquor, but it does not involve the right to get drunk and beat one's family, make a spectacle of one's self on the public street, or go off to a bawdy house on a carouse. 'Personal liberty' may give one the right to smoke, but it does not give one the right to blow his smoke into another man's face, or to vitiate the atmosphere in a room where another man, who does not like smoke-polluted air, has a right to be. 'Personal liberty' may give a man a right to cultivate 'art' in any way he sees fit, but it does not give him the right to make a public nuisance of himself or to post pictures in his windows or on the billboards to smite our eyes, and to school our children in the ways of vice and crime, whether we like it or not. 'Personal liberty' may give people the right to corrupt their own bodies and fool with their own health, but it does not give quack doctors the right to issue circulars and newspapers to print advertisements full of base lies calculated to mislead the young and inexperienced into the notion that Nature's laws can be violated with impunity."

The Slaughter of the Innocents Continues.

Dr. S. D. Barnes, Seattle, Wash., sends us an account of the death of twin babies which, he says, occurred from an overdose of Mrs. Winslow's Soothing Syrup.

On March 31 the children were found dead in the perambulator in which they had been put to sleep. Deputy Coroner Wiltsie and Police Sergeant Bannick investigated the affair. At first they believed that the children had been smothered, but later were informed that they had been given a dose of soothing syrup before being put to bed the night before. The stomach contents were analyzed, and the report of the analysts stated that small quantities of opium were found. The coroner decided that an inquest was unnecessary and signed the death certificate giving accidental poisoning as the cause of death. In commenting on this case, the Seattle *Sunday Times* states that indiscriminate use of sleeping potions for infants in many cases leads to child murder, unintentional it is true, but none the less murder. The *Times* also deplores the fact that in Washington there is no law regulating the sale of these deadly "patent medicines."

Correspondence

Medicinal Foods.

PHILADELPHIA, May 11, 1907.

To the Editor:—The report of the Council on Pharmacy and Chemistry in regard to medicinal foods in THE JOURNAL, May 11, 1907, is exceedingly important and most instructive. The knowledge that we had before was such as to have led very many exact and thoughtful clinicians to consider these foods of extremely limited value. The report gives most clear and impressive evidence that this is indeed true. In the teaching and practice of dietetics we need more than anything else, I think, greater exactness. We need this most of all in those cases in which the diet is necessarily very restricted and in which, consequently, inaccuracies may be dangerous. The report is especially welcome, therefore, for it is in this class of cases that these foods are most likely to be used and misconceptions regarding their value are very general. The common use of these medicinal foods, so far as I have been able to learn from my contact with those who have some dependence on them, is due chiefly to three things:

1. Their nutritive value is thought to be very great. Often, indeed, it is believed that the very few ounces that can be given provide a reasonably large day's ration. This misconception, which is a dangerous one, has been fathered and fostered by many of the manufacturers, and some of them, I have been rather pleased to find, have an honest, though sadly mistaken, belief in the truth of their statements. The report of the Council definitely straightens out this matter. It is of very real and earnest importance that the results of their analyses should become generally known and should be properly appreciated. I have repeatedly had occasion to calculate the actual calorific value of the day's ration of patients whom I found using these foods, by the advice of their physicians, as a more or less considerable part of their diet. In such instances I have found, almost as a rule, that they were taking, at most, one-third of what they actually required in order to maintain nutrition; usually, indeed, it was less than this. One of the most serious things, therefore, that they were suffering from was more or less severe starvation. I find, in fact, from this report of the Council, that I have usually been too generous in the approximate figures that I have used in calculating the value of these foods. It is true, as we are often told—particularly by the manufacturers—that the calorific value is not the only consideration regarding foods; but it is equally true that it is the first and the most essential consideration. No matter how pleasing to the palate or to a disordered digestion a food may be, the amount of it must be sufficient, or the patient's nutrition will suffer; and if the deficiency is very great he will die of starvation. I have long been most thoroughly convinced that many a patient has suffered severely when preparations such as these were being used, and that not a few of them have died chiefly of starvation; while the medical attendant, believing what he has been told as to their nutritive value, has attributed the fatality, not to the starvation, but to the disease for which the patient was being treated. This report of the Council makes it impossible to escape the feeling that this has occurred even more frequently than had been suspected.

2. A not uncommon cause of the use of these preparations is the fact that it is very easy to remember the names of a number of proprietary foods and to order them, while it is a little more difficult to acquire ready knowledge of a variety of simple preparations that can easily and cheaply be made in the home. If one faces this matter fairly, however, it is apparent that to do this is merely to require the patient to pay dearly in money, and perhaps in health, for one's laziness or ignorance, and I think that this plea for their use can scarcely be urged very strongly. On this point, however, I think many a practitioner can throw the responsibility for his use of such preparations back on his medical education. His *alma mater* has treated the teaching of dietetics in such a stepmotherly way that, while it might have been made easy for him to use simple and cheap foods properly, it seems actually difficult to him, because largely unknown; and he grasps at the tangible, even though it be costly to his patient and of unknown composition. Much of the use of these foods depends simply on imperfect teaching of dietetics.

3. It is frequently believed—and this belief is most energetically encouraged by the manufacturers—that the medicinal foods are often borne by disordered digestive tracts, when other foods are not. On the contrary, I think that most clinicians that have attempted to use other foods carefully have found themselves continually growing more effectually weaned from the use of such preparations, because others do better. If one acquires a very moderate degree of skill and resource in using simple and comparatively cheap home-preparations, one rarely has the slightest temptation to use the proprietary preparations. It is true that if one believes that a few teaspoonfuls of the medicinal foods are equivalent, for example, to a quart of milk, one may readily believe that it is much easier to nourish a patient thoroughly with them than with milk or various home-preparations, but such a belief is ridiculously erroneous. If the actual food value of a diet that has been ordered be carefully determined, one finds that one can get more into the patients by other means than by using these foods.

At most, there is but one limited sphere, to my mind, in which they have any usefulness: In those very exceptional cases in which capriciousness on the part of the patient, uncertain appetite and irritable digestion combine to make it very difficult to get anything like enough food into him—cases in which even very small added quantities of food are very important and it becomes necessary to provide a great variety—they are sometimes useful, even at a high price, simply because they increase the number of things from which one can choose. If one realizes that the few drams that can be given of these preparations are equal in value to only the same number of drams, or less, of milk, one can properly make the patient pay a high price for even a little increase in variety. Such cases, however, are rare. If the same amount of time that is often devoted to studying the advertisements of these foods were given to learning the variety of ways in which more valuable and less expensive foods can be prepared at home, the number of such cases would become very small indeed.

A very important disadvantage of these foods, and one that leads me to avoid them almost as much as does their low nutritive value, is their alcohol content. The report of the Council dwells on the fact that if an amount of these preparations sufficient to maintain nutrition were given, the patient would often be made continuously drunk. But even in the small doses that are customarily used the quantity of alcohol is often irritating to the stomach and may be disadvantageous in other ways—particularly in nervous cases. The figures given by the report show that when one gives food in the form of these preparations, he must give, at the same time, approximately, from one to five times the quantity of alcohol that is given of the simple non-toxic foods. Would it not be utterly irrational to be obliged to give a small dose of strychnin, for instance, with each small portion of food; and to be obliged also, every time that one increased the food, to increase coincidently from one to five times the amount of strychnin that one was giving? This is what happens with these preparations in regard to alcohol, and it is so frequently disadvantageous that this objection alone can not but be an exceedingly weighty one.

I have no doubt that, in answer to the report of the Council and to any comments that may be made on it, many practitioners will recall cases in which these preparations have been used in small amounts, and the patients seem to have been kept alive by them. I think we may ask such persons to remember the fact that human beings can live for some weeks without any food at all, if only some fluid is given them, and that temporary starvation often does actual good in suitable instances. But even temporary starvation is a dangerous practice to employ without realizing that one is using it, and protracted starvation is highly dangerous.

DAVID L. EDSALL, M.D.

Danger of Fire in Formaldehyd Disinfection.

PHILADELPHIA, May 2, 1907.

To the Editor:—The increased efficiency of formaldehyd disinfection as applied at the present time by means of the formalin-permanganate method of evolving the gas has brought with it a new danger, uncertain, yet none the less real, in consequence of the fact that on several occasions at least, the mixture has been known to take fire spontaneously.

During the winter of 1906-7 Dr. Courtland Y. White of Philadelphia, in connection with some disinfection work which he was doing for the Department of Health of the state of Pennsylvania, observed on three occasions that the mixture caught fire after the combination of the constituents had begun and the room had been closed. It was fortunate that the fact was discovered on one of these occasions, as the flame was so high as to endanger nearby articles in the room. Suspecting the possibility of impure ingredients, he wrote to Health Commissioner Dixon concerning the matter, and Dr. Dixon referred the matter to me for consideration and investigation.

It is well known that there is considerable uncertainty connected with reactions in which potassium permanganate plays a part and that even with inorganic substance, as in the Kjeldahl method for the estimation of nitrogen, there is sometimes a spark or flash of fire when the permanganate is added to the other constituents. In the formalin-permanganate method it has been customary to use two parts of formalin to one part of permanganate, adding the latter to the former and quickly leaving the room before the violent evolution of gas which shortly takes place has time to affect the operator. Working with quantities in some cases as high as one pound of permanganate, the amount of heat developed must be very great and if there are any uncertain factors present, such as organic matter in the container which has been imperfectly cleaned, the danger of possible ignition is that much greater.

The flame which appeared on the occasion described by Dr. White was a pale blue flame, reaching several feet into the air from the generating container. This agrees with the appearance of the flame of formaldehyd gas which burns freely when ignited even if mixed with a fair proportion of steam, as is usually the case.

The gas may be ignited from a 40 per cent. solution of formaldehyd by simply heating it and applying a match to the surface after ebullition has begun. And when the formalin-permanganate disinfection proportions are used in as small quantities as one ounce of formalin and one-half ounce of permanganate, using a beaker for a generator, the flame of the ignited gas has been observed to have a length of more than one foot.

In view, therefore, of the uncertainty regarding the cause of the ignition of the vapor in these observed cases and in recognition of the hitherto overlooked fact that formaldehyd vapor is very inflammable, it would be well to practice this method of disinfection with the precautionary measures of using small quantities of the ingredients (not over ¼ or ½ lb. of permanganate to a charge) in several containers, surrounding these containers with larger ones containing water, being careful to extinguish all gas jets, pilot lights, fire and other possible causes of ignition and to keep the generators away from the sides of the room where a flame might be communicated to inflammable material. I do not believe that this method of disinfection need necessarily be abandoned, but it is essential that its limitations and dangers be not overlooked in its future use.

CHARLES H. LA WALL,
Consulting Chemist to Dr. Samuel G. Dixon, Commissioner of Health of the State of Pennsylvania.

The Review of Dr. Babcock's Book on Diseases of the Lungs.

CHICAGO, May 5, 1907.

To the Editor:—In THE JOURNAL, April 27, page 1453, there appears a review of Dr. Robert H. Babcock's recent work on "Diseases of the Lungs." In common justice to this excellent treatise and in fairness to the author himself, I beg leave to reply to this review.

In the first place, the reviewer of Dr. Babcock's book fails to take into account the fact that it is not a system that the author offers us, but a monographic treatise on a special topic, and that in consequence of this he has been subject to certain restrictions of space and scope which prevent him from exhausting in full the diseases under consideration. He has apparently neglected, as well, to read the author's preface, in which is distinctly outlined the limitations of the book. Instead of finding fault, as does this reviewer, with the fact that certain diseases, such as bronchial asthma and pulmonary emphysema, are not considered in full detail, we should record our obligation to the writer that he has not burdened his text with encylopedic dissertations on all points, but has in place furnished us with practical readable discussions from a mature judicial standpoint, of the clinical aspects of the various diseases dealt with according to his prefatory claim. The reviewer inadvertently misleads by the statement that pulmonary emphysema is not given more space than is devoted to atelectasis and pneumonoconiosis, whereas the fact is that 23 pages are devoted to emphysema, while but 15 to the two latter diseases together. He criticises the scant space given to the consideration of acute miliary tuberculosis, apparently forgetting that it is a book on diseases of the lungs that he is reviewing and not a treatise on general medicine, and unmindful of the author's explanation in his text of his reasons for excluding it from extended description. The reviewer again deprecates the comparatively large amount of space devoted to symptomatology, apparently having little faith himself in purely clinical aspects of disease. In this criticism he fails to allow for the fact that the case illustrations, which are especially rich and varied and add greatly to the interest of the book, are included in the sections on symptomatology, thereby swelling their bulk.

The reviewer next criticises the author for mentioning the names of physicians to whom he is indebted for the referred cases in his clinical reports. In thus signifying his professional obligations, the author follows an old custom which has characterized the amenities of English and American medical literature for many decades. It is one of those customs of which, unfortunately, there are too few surviving in this busy age, which mark the pleasant courtesies of other times.

The review closes with a commendation of the author's style, but evidently the reviewer can not permit himself an unqualified approval, for abashed apparently at his one indulgence in praise, he proceeds to charge a lack of emphasis and force to the "author's elegance and fluency." "Emphasis is the insistence of a weak argument," and the intelligent reader will acknowledge his obligations to the distinguished author for leaving something to his discrimination and understanding. "There is not a single epigram in the book," says the reviewer in closing. The making of epigrams in medicine is a dangerous business. In no branch of science is truth so relative a thing as in medicine. What is to-day an epigram becomes a glaring half-truth to-morrow. "Experience is fallacious and judgment fleeting," wrote Hippocrates many centuries ago.

It must be humiliating to the author to have the only unqualified approval of his work consist of a commendation "of the author's advocacy of infection (in tuberculosis) as opposed to the old idea of hereditary predisposition." Thus, again, are the common virtues applauded, while the many higher excellences are passed over in silence. Dr. Babcock has already made good in his excellent work on "Diseases of the Heart," which has met with a most favorable reception at the hands of the profession. "Good meat needs no basting," and those who read his companion work on the diseases of the lungs will not be disappointed. ARTHUR R. ELLIOTT, M.D.

[I have no wish to enter into any controversy with Dr. Elliott about the book itself, but I wish to correct certain impressions which his letter may make. It is true that I did not recognize in Dr. Babcock's book a monograph. I looked on it rather as a systematic account of the diseases of the lungs and pleuræ, noting in consequence the necessity of restrictions, both in space and matter. Moreover, I read carefully both preface and text. I still feel that the detailed accounts of numerous cases without postmortem notes might well have been omitted, so that space might have been spared for more important matter. Of what value, for example, is the case "recently seen in Elgin, Ill., in consultation with Dr. O. T. Pelton," since "at

present writing it is too soon to report the outcome of this case"? (p. 164). And "the only excuse for so detailed a narration" of another case, stretching over two and three-fourths pages, "is its instructive portrayal of one of the modes in which this truly terrible disease (secondary pneumonia) slays its victims," (pp. 210-212). Moreover, I am ready to repeat that relatively too little space is accorded both to pulmonary emphysema and to acute miliary tuberculosis of the lungs. On page 550 I fail to find any explanation in the author's text of his reasons for excluding acute miliary tuberculosis of the lungs from extended description, Dr. Elliott to the contrary notwithstanding. But I do find expressed a reason why "it is considered practical to recognize" it; and in this I thoroughly agree with Dr. Babcock. Dr. Elliott censures me for criticising Dr. Babcock for mentioning the names of physicians who called him in consultation. Yet why should these names be given? Why burden the reader with them? What matters it where the patient lives, whether in Macomb, Ill., or Ottumwa, Iowa? And surely the amenities of English and American medical literature scarcely demand the name of an earlier consultant, proved to have been in the wrong by a subsequent postmortem examination (p. 239), even though the family physician and Dr. Babcock also fell into the error.

Dr. Elliott's last paragraph is not just. Several commendations of the book appear in the original review, to which the reader is referred. It is true that I stated that "at times the author's elegance and fluency get the better of strength and force." This I fully believe, and I count it not wholly a disparaging criticism. And as for the epigram, Dr. Elliott, I thank you for the illustration. Do you believe that this ancient epigram of Hippocrates, "Experience is fallacious and judgment fleeting" is to "become a glaring half truth to-morrow?"—THE REVIEWER.]

The Neglect of the Anamnesis.

SCRANTON, PA., April 26, 1907.

To the Editor:—I agree with Dr. Bayard Holmes in his recent article (THE JOURNAL, April 20, page 1349) that the patient is our study and, that regardless of surroundings, conditions or circumstances, he expects us to cure him without reference to the name of the disease. The patient first asks: "Can you cure me?" Second: "How long will it take?" Scientific diagnostic means, such as the Widal typhoid reaction, used to the exclusion of common sense, will not make the patient well any quicker, as they are only confirmatory, and there are enough other signs to teach one that he is dealing with a sick man. I cite this method, not to condemn it, but to illustrate the tendency to forget that we are treating the genus *Homo* and not the bacilli.

The first and foremost factor is the patient. Get him well. Forget, if you will, all the technic or, if you will, elaborate it to your heart's content, but for the love of humanity use your reason and treat your patient even as you would be treated. We must study our patients. To know that we have not neglected our patients will not only bring us comfort, but will bring us nearer perfection and nature and natural processes.

D. W. EVANS, M.D.

Temperance Lunch.

HARTFORD, CONN., May 8, 1907.

To the Editor:—I have received a number of inquiries relating to the temperance lunch proposed at Atlantic City, June 6. It should be distinctly understood that this occasion is not to promote any particular theory, or society, or any special effort to enlist or pledge any one to the so-called temperance cause. The purpose is simply to gather, and informally talk over the many questions which are arising about this problem. It seems eminently fitting that the American Medical Association, the largest medical society in the world, should recognize this subject in this simple way, and indicate that we are not indifferent to the medical and hygienic interests which center about it.

The Society for the Study of Alcohol has simply volunteered to manage and conduct this event in response to the request of a number of persons who feel that the members of the American Medical Association should show an equal interest in this subject to that of the great foreign societies. At the British Medical Association, at Toronto, last fall, a similar lunch attracted over 600 persons, the full limit of the hall. The whole affair was informal and each speaker represented himself personally, and it was a frank, open expression of opinions.

I appeal, therefore, to every physician of the Association to show his interest in the general subject by making this occasion prominent and eventful, and by attending this lunch with his family and hearing what may be said by some of the leaders of the profession.

I shall be very glad to give any further information or details.

T. D. CROTHERS, M.D.

Dentists Also Dupes of Nostrum Makers—A Letter with Spirit.

SOMERVILLE, MASS., April 17, 1907.

To the Editor:—I wish to write a word of praise for the great work THE JOURNAL is doing in educating the medical profession on the nostrum question. Keep up your good fight for ethical medicine. Ten years ago, when I was in the drug business I realized that the medical profession was being lowered by the nostrum vendors, and I think we are indebted to the *Druggists Circular* for the stand it has always taken for ethical medicine. The medical profession has been and some of its members are still being bluffed by the proprietary men, but nothing compared to the dental profession. The dentist is the acme of credulity. About a year ago I read a paper before three Massachusetts dental societies on the subject. It was sent to three leading dental trade journals. They all refused to publish it. I have read "Adding Insult to Injury" (THE JOURNAL, Jan. 26, 1907, page 340) referring to Antikamnia. This is fine. You strike right from the shoulder, and you touch one phase of the subject which I am ashamed to say I had overlooked. I intend to act, however. Here is a copy of a letter which I am mailing to Merck to-day:

DEAR SIRS:—I am astonished to find in the columns of the *Archives* advertisements of the two fake preparations, Antikamnia and Phenalgin, especially after they have been so thoroughly exposed by THE JOURNAL of the American Medical Association. When my subscription expires I am through with you and your journal. Furthermore, if you continue to carry these ads I shall cease prescribing and using Merck's products of every description.

G. B. SQUIRES, PH.G., D.D.S.

Book Notices

AMERICAN PRACTICE OF SURGERY. A Complete System of the Science and Art of Surgery by Representative Surgeons of the United States and Canada. Editors, Joseph D. Bryant, M.D., and Albert H. Buck, M.D. Complete in Eight Volumes. Illustrated. Volume II. Muslin Binding. Pp. 778. Price, $7.00. New York: William Wood & Co.

The first volume of this work was recently reviewed *in extenso* in these pages, and the second volume, just received, maintains the same general standard. In part vi, which deals with such infections as leprosy, plague, glanders, anthrax, actinomycosis, mycetoma, rhinopharyngitis mutilans and scurvy, the space assigned to some of the subjects is entirely out of proportion to the importance of the subject. For instance, twenty-seven pages are devoted to leprosy, a rare curiosity in this country, and but five pages to actinomycosis, with but a single paragraph on symptomatology, although actinomycosis is common in comparison with leprosy and presents such varied manifestations as to make it worthy of more thorough consideration. In the chapter on syphilis, it is stated that "up to the present time the cause of syphilis has not been discovered," notwithstanding the fact that the claims made for the *Spirocheta pallida* as the infectious agent seem most convincing, if not overwhelming. The use of poultices of absorbent cotton saturated with 2 per cent. carbolic acid solution for infections, as recommended on page 155, when applied to the extremities, carries great danger of producing gangrene of the fingers or toes, as has been noted repeatedly. In the chapter on "Surgery of Diseases of the Skin," several subjects are handled which are also included in other chapters of this volume—for instance,

furunculosis, carbuncle, anthrax, glanders, etc.—so there is considerable unnecessary repetition. The present-day extensive use of electricity in all lines of industry gives rise to frequent electric burns and shocks, the immediate and after effects of which are often very distressing. The subject of "The Effects of Electric Currents," therefore, deserves more thorough consideration than it receives in the space of scarcely a page. There are other chapters in this volume, however, which are very good, notably among which may be mentioned those on "Gangrene and Gangrenous Diseases," "Surgical Diseases of the Lymphatics," "Gunshot Wounds," etc., so that the entire volume makes a fitting second in this great work.

ALCOHOL, The Sanction for Its Use, Scientifically Established and Popularly Expounded by a Physiologist. Translated from the German of Dr. J. Starke. Cloth. Pp. 317. New York and London: G. P. Putnam's Sons, 1907.

This book presents a candid defense of the use of alcohol as a beverage, with arguments drawn from scientific experiments as well as from experience and current opinion. The scientific facts appear to be, in the main, correct, but the propositions which the author attempts to establish will seem to many open to question. He distinguishes sharply between the moderate use of alcohol and its use for purposes of intoxication, as if intoxication were a matter of deliberate choice. The moderate drinker, according to him, drinks for the purpose of stimulation; the drunkard, to obtain stupefaction. It is a delicate task to decide on the motives of men, but, while some men drink to drown their sorrows, it would seem to be the teaching of experience that others reach the stage of drunkenness, even when they are habitual drunkards, by taking the first glass from a desire for stimulation. The author pronounces the dictum: "The alcohol of alcoholic drinks does *not* of itself possess the property of inducing persons to take ever-increasing amounts." His ground for this statement is thus expressed: "We are all familiar with the 'leading to constantly increasing quantities.' If it were correct, all those who use alcohol must end in drunkenness." The fallacy of this is shown by the very words moderate and temperate, which of themselves indicate an effort of the individual to restrain himself, to oppose a tendency. Shall we say that the pneumococcus has no tendency to produce disease because many individuals harbor it without dying of pneumonia? The third proposition is that the moderate use of alcohol has nothing to do with the production of any disease. This statement seems to be fairly well sustained, although there might be differences of opinion as to the meaning of the word moderate. His discussion of the part played by alcohol in the etiology of disease will convince the lay reader of uncertainty of the conclusions drawn from cases complicated by so many etiologic factors, and he can hardly escape attributing the same uncertainty to argument drawn from the successful use of alcohol as a medicine. If physicians have been mistaken in attributing disease to alcohol, why may they not have been equally mistaken in assigning alcohol as the curative agent? The account of the action of alcohol as determined by experiment is clear, but not detailed. The author holds that alcohol is a nutrient possessing the specific property of stimulating the nervous system, but not a poison in the popular sense of that term. The position of the author will undoubtedly invite criticism, and it is to be hoped that such criticism will result in establishing the truth concerning alcohol and alcoholic beverages.

MANUAL OF DIAGNOSIS AND TREATMENT OF DISEASES OF THE EYE. By Edward Jackson, A.M., M.D., Professor of Ophthalmology in the University of Colorado. Cloth. Pp. 615. Price, $2.50 net. Philadelphia: W. B. Saunders Co., 1907.

In this second edition Dr. Jackson has added much material that has proven of value since the appearance of the first edition, especially the studies of new conditions and of new remedies and methods of treatment. The book is intended as a manual for the beginner in ophthalmology and for the general practitioner. Abundant references are given to the original sources of the matter presented, making it very easy to go more deeply into a given subject if desired. The chapters on refraction are particularly valuable, coming, as they do, from a man of Dr. Jackson's peculiar ability and painstaking care in this particular branch of ophthalmology. Among the important additions which have been made are a number of the latest diagnostic methods, such as testing the light sense, mapping central scotomata, "fogging" method in refraction, diseases and congenital defects of the ocular muscles, etc., etc. The book might be more freely illustrated with advantage, as in no work are illustrations of as much value as in one intended for beginners. The illustrations here are practically all schematic, an advantage always to the student who first approaches a subject. There is a fairly complete list of "remedies and applications," and the book closes with a consideration of the commoner operations in ophthalmology.

RACE CULTURE; OR, RACE SUICIDE? A Plea for the Unborn. By Robert Reid Rentoul, Doctor of Medicine; Member of the Royal College of Surgeons, England. Cloth. Pp. 182. Price 7s. 6d. net ($1.87). New York: The Walter Scott Publishing Co., 1906.

The author's line of reasoning runs something as follows: The race is degenerating physically, as is shown by the increasing amount of illness, the rejections of recruits for the Army and Navy, the number of deaf and blind. He estimates the number of those affected with temporary or permanent physical disability as one in five. Mental degeneration is shown by insanity, criminality, vice, etc., and the number of cases is estimated at one in fifty, although, perhaps, this is too low. The causes of degeneracy are put as the intermarriage with lunatics, idiots and feeble-minded persons, child marriages, forbidding or restraining the healthy from marriage, encouraging the marriage of the unfit, release of asylum patients before recovery, overwork of the young brain, unsuitable employment for women and children, abuse of alcohol, undesirable immigration, venereal diseases, abortion and sexual excess. The legal restrictions of marriage in various countries are described, and then the author advances the remedy which he advocates, viz.: the sterilization of certain degenerates so that they can not transmit their enfeebled constitution to posterity. He claims that this proposal has received support from a considerable number of medical men. A large mass of evidence is presented, and while one may not agree with the author's conclusions, it must be admitted that an *a priori* case is made out. If degeneracy threatens the extinction of the race the legal restrictions of marriage for the unfit is certainly an appropriate, although it may not be an effective, remedy. It will seem to many that voluntary or forced sterilization can be imposed on so few as to make it a measure of doubtful utility. However, it is desirable that this remedy be thoroughly canvassed, and it is the mission of this book to bring the remedy into public notice, a mission that it is admirably adapted to fulfill.

PSYCHOLOGY APPLIED TO MEDICINE. Introductory Studies by David W. Wells, M.D., Lecturer on Mental Physiology in Boston University Medical School. Cloth. Pp. 141. Price, $1.50 net. Philadelphia: F. A. Davis Company, 1907.

This takes up the subject in a simple and fundamental manner and works up to a pertinent criticism of the too-common disregard of the practitioner for the potency of suggestion. The book will aid in an understanding of the success of quacks, "patent medicine," Eddyism and other means which often cure without material agency.

Association News

ATLANTIC CITY SESSION.

The railroad rates to the annual session of the American Medical Association at Atlantic City, June 4-7, were described in THE JOURNAL, May 4. That issue, the Atlantic City number, contained an illustrated description of Atlantic City, with the preliminary programs of the sections, lists of hotels and their prices, meeting places, etc. The rates mentioned in that issue did not refer to the Western Passenger Association, which granted one fare plus $2 for the round trip. The same rate was authorized by the Central Passenger Association. In the territory of the Trunk and the New England passenger associations the rate is one fare plus $1 for the round trip.

A change has been made in the rules for transcontinental tickets from California on sale May 25 to 27. The return limit will be 60 days instead of 90 days. Other tickets, on sale May 20 and 21, still have the final limit of 90 days.

It is understood that detailed information has been furnished to all ticket agents and that they will provide purchasers of tickets with full information as to rates, routes, stopovers, etc.

American Medical Special.

A correspondent asks about the route of the American Medical Special. This Pullman vestibuled train is to run as a section of the Pennsylvania's Chicago-New York eighteen-hour train. The schedule insures it a fast, steady run, and its equipment will be as good as that on the famous flyer. The Susquehanna River at Harrisburg will be passed about 6 o'clock in the morning, giving the passengers an opportunity to enjoy the beautiful country between Harrisburg and North Philadelphia, at which point the train turns off to Atlantic City; it runs from Chicago to Atlantic City without change and does not enter the Broad Street station.

This train will leave Chicago, Sunday, June 2, at 3 p. m., reaching Atlantic City early Monday afternoon. The fare is $21.50 for the round trip, Chicago to Atlantic City and return. For sleeping-car reservations and further information one may address Mr. C. L. Kimball, assistant general passenger agent, 2 Sherman Street, Chicago. Special cars may be arranged for by parties of sufficient size, from west, northwest or south, who wish to join this special train.

Tickets are on sale at the special rates from Western passenger Association territory, May 30 to June 3. Tickets may read by way of Washington if desired, so as to allow arrangements to be made for a side trip to the Jamestown Exposition. A correspondent has called attention to the fact that advertisements in THE JOURNAL, May 4, give the final limit of leaving Atlantic City, after tickets have been extended, as June 14, while the statement on page 1522 in the Atlantic City writeup named June 18. This is explained by the fact that the railroads first named June 14 as the limit, but page 1522 went to press late enough to include later information, after the date had been extended to June 18.

Jefferson Medical College Clinics.

The Jefferson Medical College has arranged a series of clinics, ward walks and demonstrations for visiting physicians on June 8, 10, 11 and 12. These will be in connection with the dedication of the new hospital, details of which were given in the Atlantic City Number (May 4) of THE JOURNAL.

SATURDAY, JUNE 8.

9:30 to 11:30 Clinic, "Frontal Sinus," Prof. Gustave Killian, Freiburg, and Laryngologic Clinic, Prof. Theodore Gluck, Berlin.
9:30 to 11:30 Physiologic Laboratory, Prof. Albert P. Brubaker.
12:00 to 2:00 Surgical Clinic, Prof. J. Chalmers DaCosta and guests.
12:00 to 2:00 Medical Ward Walks, Prof. H. A. Hare and Prof. James C. Wilson.
2:00 to 4:00 Gynecologic Clinic, Prof. E. E. Montgomery.
2:00 to 4:00 Neurologic Ward Walks, Prof. F. X. Dercum.
4:00 Regional Anatomy (white board sketches), Prof. George McClellan.
5:00 Pathologic Laboratory, Prof. W. M. L. Coplin.

MONDAY, JUNE 10.

9:30 to 11:30 Obstetric Clinic, at Maternity, Prof. Edward P. Davis.
10:00 to 11:30 Genitourinary Clinic, Prof. Orville Horwitz.
12:00 to 2:00 Surgical Clinic, Prof. John H. Gibbon and guests.
2:30 to 4:00 Ophthalmologic Clinic, Prof. Howard F. Hansell.
4:00 to 5:00 Clinical Medicine, Prof. Solomon Solis-Cohen.

TUESDAY, JUNE 11.

10:00 Mastoid Clinic, Prof. S. MacCuen Smith.
11:00 Orthopedic Clinic, Prof. H. Augustus Wilson.
12:00 Pediatric Ward Walks, Prof. Edwin E. Graham.
1:00 Dermatologic Clinic, Prof. Henry W. Stelwagon.
2:00 Laryngologic Clinic, Prof. D. Braden Kyle.
3:00 Ophthalmologic Clinic, Associate Prof. William M. Sweet.
4:00 Gynecologic Ward Walks, Asst. Prof. John M. Fisher.

WEDNESDAY, JUNE 12.

10:00 to 12:00 Gynecologic Clinic, Prof. E. E. Montgomery.
12:00 Opsonins, Dr. John C. DaCosta.
1:00 to 3:00 Surgical Clinic, Prof. J. Chalmers DaCosta.
3:00 to 5:00 Obstetric Clinic at Maternity, Prof. Edward P. Davis.

H. AUGUSTUS WILSON, Chairman.
HENRY W. STELWAGON,
EDWIN E. GRAHAM,
J. CHALMERS DA COSTA,
Committee.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers of the U. S. Army for the week ending May 11, 1907:

Lambert, Samuel E., asst.-surgeon, ordered to accompany Major E. R. Morris, surgeon, from Fort Logan, Colo., to Army General Hospital, Washington Barracks, D. C. Asst.-Surgeon Lambert will, on arrival at Washington, report to Major William H. Arthur, surgeon, president examining board, for examination for advancement, instead of reporting at Presidio of San Francisco, as directed in previous orders.

Snyder, Henry D., surgeon, leave extended 8 days.

Lyster, William J. L., asst.-surgeon, granted 10 days' leave of absence.

Noble, Robert E., asst.-surgeon, relieved from duty at Fort Casey, Wash., and will repair to this city and report to the chairman of the Isthmian Canal commission for duty with the commission on the Isthmus of Panama.

Scott, George H., asst.-surgeon, granted 30 days' leave of absence.

McCaw, Walter D., surgeon, detailed to represent the medical department of the Army at the Fourteenth International Congress on Hygiene and Demography, to be held at Berlin, Germany, Sept. 23 to 29, 1907.

McCulloch, C. C., Jr., surgeon, now at Ancon, Canal Zone, will proceed at once to Fort Meade, S. D., for temporary duty.

Devereux, J. R., asst.-surgeon, granted 30 days' leave of absence.

Barney, Charles N., asst.-surgeon, granted 10 days' leave of absence.

Wertenbaker, Clark L., contract surgeon, left Madison Barracks, N. Y., and arrived at Fort Wadsworth, N. Y., for temporary duty.

Bell, Leonard P., contract surgeon, arrived at Fort Riley, Kans., for duty.

Dillon, G. Parker, contract surgeon, returned to Fort Bliss, Tex., from temporary duty at Fort Apache, Ariz.

Henning, Oswald F., contract surgeon, arrived at Fort Barrancas, Fla., for temporary duty.

Ingalls, Raymond E., dental surgeon, left Fort Omaha, Neb., for duty at Fort Crook, Neb.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending May 11, 1907:

V. C. B. Means, surgeon, on discharge from treatment at the Army and Navy General Hospital, Hot Springs, Ark., ordered home and granted sick leave for three months.

M. S. Elliott, surgeon, detached from the *St. Louis* and ordered to duty at the Navy-Yard, Norfolk, Va., in connection with fitting out the *Olympia*, and to duty on board that vessel, when placed in commission.

H. C. Curl, surgeon, ordered to additional duty at the Naval Medical School Hospital, Washington, D. C.

E. S. Bogert, Jr., surgeon, on expiration of leave, ordered to the *Milwaukee*.

I. W. Kite, surgeon, detached from the *Kearsarge* and ordered to the *Franklin*.

G. H. Barber, surgeon, detached from the *Baltimore* when placed out of commission, granted leave for one week, and thence ordered to *Kearsarge*.

R. A. Bachmann, pased asst. surgeon, detached from the *Franklin* and ordered to the *St. Louis*.

J. R. Waggener, medical director, having been examined by a retiring board and found incapacitated for active service on account of disability incident to the service, is retired from active service May 6, 1907, under provisions of Sec. 1453 R. S.

E. M. Brown, passed assistant surgeon, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to duty at the Naval Hospital, New Fort Lyon, Colo.

W. Short, R. I. Longabaugh, F. X. Koltes, M. A. Stuart, assistant surgeons, appointed assistant surgeons with rank of lieutenant junior grade, from May 4, 1907.

J. H. Page, surgeon, detached from the *Milwaukee* and ordered to continue treatment at the Naval Hospital, Mare Island, Cal.

Public Health and Marine-Hospital Service.

List of changes of stations and duties of commissioned and noncommissioned officers of the Public Health and Marine-Hospital Service for the seven days ended May 8, 1907.

Wasdin, E., surgeon, granted leave of absence one month or so much thereof as may be necessary on account of sickness, from May 10, 1907.

Oakley, J. H., P. A. surgeon, directed to proceed to Seattle, Wash., for special temporary duty, on completion of which to rejoin his station.

Fox, C., P. A. surgeon, relieved from duty at San Francisco Quarantine and directed to proceed to St. Michaels, Alaska, and assume charge of the service at that port.

Trotter, F. E., P. A. surgeon, granted leave of absence for 10 days from May 8, 1907.

Vogel, C. W., P. A. surgeon, granted leave of absence for 5 days from March 27, 1907, under Paragraph 191 of the Service Regulations.

Burkhalter, J. T., P. A. surgeon, granted leave of absence for 25 days, or so much thereof as may be necessary on account of sickness, from April 20, 1907.

Warren, B. S., P. A. surgeon, granted leave of absence for 7 days from April 30, 1907, under Paragraph 191 of the Service Regulations.

Warren, B. S., P. A. surgeon, granted extension leave of absence for 3 days from May 6, 1907.

Steger, E. M., asst.-surgeon, granted leave of absence for 10 days, on account of sickness, from April 24, 1907.

Ebert, H. G., asst.-surgeon, assigned to duty on Revenue Cutter Perry, effective May 15, 1907.

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Hurley, J. R., asst.-surgeon, directed to proceed to San Francisco, Cal., for duty on the Revenue Cutter *Thetis*.

Curley, C. P., acting asst.-surgeon, granted leave of absence for 4 days from May 7, 1907.

Foster, J. P. C., acting asst.-surgeon, granted leave of absence for 5 days from May 5, 1907.

Griffitts, T. H. D., acting asst.-surgeon, leave of absence granted for 21 days from April 12, 1907, amended to read 16 days only.

Hamilton, H. J., acting asst.-surgeon, granted leave of absence for 9 days from May 4, 1907.

Stevenson, J. W., acting asst.-surgeon, leave of absence for 2 months without pay granted from Feb. 8, 1907, amended so as to grant him but 1 month and 15 days without pay.

APPOINTMENTS.

Dr. James R. Hurley, of California, commissioned (recess) as assistant surgeon, Public Health and Marine-Hospital Service, May 4, 1907.

Dr. William M. Bryan, of Virginia, commissioned (recess) as assistant surgeon Public Health and Marine-Hospital Service, May 4, 1907.

Dr. Anthony J. Lanza, of the District of Columbia, commissioned (recess) as assistant surgeon, Public Health and Marine-Hospital Service, May 4, 1907.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 10, 1907:

SMALLPOX—UNITED STATES.

Florida: Hillsboro County, April 20-27, 2 cases.
Georgia: Augusta, April 23-30, 4 cases.
Illinois: Aurora, May 2, present; Danville, April 23-30, 1 case; Plainfield, April 17-May 2, 30 cases; Springfield, April 25-May 2, 1 case.
Indiana: Elkhart, April 20-27, 1 case; Indianapolis, April 21-28, 4 cases; Jeffersonville, April 1-30, 1 case; Lafayette, April 22-29, 1 case; Marion, April 1-30, 4 cases; Michigan City, April 1-30, 1 case; South Bend, April 20-27, 1 case.
Iowa: Ottumwa, April 6-27, 10 cases.
Kansas: Kansas City, April 27-May 4, 2 cases (imported); Lawrence, March 1-31, 6 cases.
Kentucky: Louisville, April 25-May 2, 1 case.
Louisiana: New Orleans, April 20-27, 10 cases.
Massachusetts: Chelsea, April 20-27, 1 case; Lawrence, April 20-27, 16 cases.
Michigan: Ann Arbor, April 20-27, 1 case; Saginaw, April 20-27, 1 case.
Minnesota: Stillwater, Feb. 1-28, 1 case; Winona, April 20-27, 3 cases.
New Jersey: Hoboken, April 27-May 4, 1 case.
New York: New York, April 20-27, 1 case, 1 death.
North Carolina: Greensboro, April 20-27, 5 cases.
Ohio: Cincinnati, April 26-May 3, 1 case; Cleveland, April 19-26, 1 case; Toledo, April 20-27, 4 cases.
Texas: Bell County, May 3, 3 cases; Houston, April 20-27, 9 cases; San Antonio, March 30-April 6, 2 cases; April 20-27, 2 cases.
Washington: Spokane, April 20-27, 16 cases (2 imported); Tacoma, April 20-27, 1 case.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 16-23, 7 cases.

SMALLPOX—FOREIGN.

Brazil: Para, April 6-13, 2 cases, 1 death.
Canada: Toronto, April 6-13, 3 cases; April 20-27, 3 cases.
Chile: Coquimbo, April 6, 2 cases; Iquique, April 6, present.
China: Hongkong, March 9-23, 53 cases, 34 deaths; Nanking, March 23-30, 2 cases; Shanghai, March 23-30, 3 cases, 24 deaths; Tientsin, March 23-30, 2 cases.
France: Paris, April 13-20, 11 cases, 1 death; Toulon, March 1-31, 12 cases, 5 deaths.
Germany, general: March 16-30, 37 cases.
Gibraltar: April 14-21, 1 case.
India: Bombay, March 26-April 9, 8 cases; Calcutta, March 23-30, 81 deaths; Madras, March 30-April 5, 6 deaths; Rangoon, March 16-30, 3 deaths.
Italy, general: April 4-18, 35 cases.
Madeira: Funchal, April 14-21, 60 cases, 12 deaths.
Mexico: Jalapa, April 19-26, 1 death; Mexico, March 23-April 6, 23 deaths; Vera Cruz, April 20-27, 1 death.
Peru: Lima, March 31-April 6, present.
Russia: Odessa, April 6-13, 11 cases, 1 death.
Siberia: Vladivostock, March 21-28, 1 death.
Spain: Valencia, April 14-21, 1 case.
Straits Settlements: Singapore, March 16-23, 1 death.
Turkey in Asia: Bassorah, March 30-April 6, 5 deaths.

YELLOW FEVER.

Brazil: Manaos, April 6-13, 1 death.
Ecuador: Guayaquil, April 6-13, 7 deaths.

CHOLERA.

India: Bombay, March 26-April 9, 2 deaths; Calcutta, March 23-30, 57 deaths; Madras, March 30-April 5, 1 death; Rangoon, March 16-30, 13 deaths.
Straits Settlements: Singapore, March 9-16, 1 death.

PLAGUE—INSULAR.

Hawaii: Honolulu, April 29-May 6, 8 cases, 4 deaths.

PLAGUE—FOREIGN.

Brazil: Para, April 6-13, 3 cases, 2 deaths.
Chile: Antofagasta, April 6, 21 cases, 6 deaths; Santiago, April 6, present; Talchhuana, April 6, present.
China: Hongkong, March 16-23, 3 cases, 3 deaths.
Egypt: Alexandria, March 28-April 11, 2 cases, 2 deaths; Assiout Province, March 28-April 11, 10 cases, 4 deaths; Beni Souef Province, March 28-April 11, 2 cases, 2 deaths; Girgeh Province, March 28-April 11, 6 cases, 3 deaths; Keneh Province, March 28-April 11, 68 cases, 48 deaths; Minieh Province, March 28-April 11, 12 cases, 4 deaths.
India: Bombay, March 26-April 9, 1,262 deaths; Calcutta, March 23-30, 166 deaths; Rangoon, March 16-30, 163 deaths.
Peru: Eten, March 30-April 6, 6 cases, 5 deaths; Lambayeque, March 30-April 6, 7 cases, 3 deaths; Lima, March 30-April 6, 6 cases, 1 death; Paita, March 30-April 6, 11 cases, 5 deaths; Santiago de Cao, March 30-April 6, 1 case, 1 death; Trujillo, March 30-April 6, 6 cases, 7 deaths.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, CONTRACT PRACTICE, INSURANCE FEES, MEDICAL LEGISLATION, ETC.

The Business Side of General Medicine.

In a recent number of the *Texas State Journal of Medicine* Dr. J. E. Dildy of Lampasas makes some pertinent and practical suggestions on the above topic. Lack of space forbids production of the paper as a whole, but many of Dr. Dildy's observations are so forceful as to be worthy of reproduction.

Speaking of the position of the medical profession, he says: "We are professional men in every sense of the word; we have the mental labor of lawyers, the moral standing of ministers, the technical knowledge of organized artisans and the business qualifications of school children. The average man will give a lawyer $300 to $500, together with a lifetime's praise, to keep him out of the penitentiary for from two to ten years, and at the same time he will raise a phosphorescent glow and a kick that can be heard around the world if a doctor charges him $50 to $100 to keep him out of hell for a lifetime."

Commenting on the amount of work done by members of the profession, Dr. Dildy says: "We are the only people under God's ethereal tent to-day who keep open shop 24 hours each day and 365 days in each year. We are also the only laborers to keep on working for people who do not pay."

The attitude of a thinking member of the profession toward charity work is very well summarized in Dr. Dildy's discussion of the amount of unremunerative work done by physicians. "I can carry my part of charity with as good a grace as most men. I can go through rain, snow or mud and do my best, provided the case is one of worthy need, but to reward continually downright rascality, wilful drunkenness and wanton laziness is getting out of my line." The logic of his statements no one will deny, although very few of us have the moral courage to do what we know is our duty to ourselves, our patients, and our families along these lines.

The following should be pondered on by every practicing physician: "The average doctor tries to do too much work. Every doctor wants everybody to patronize him. He likes to be going night and day, rain or shine, Sunday or week-day, hot or cold. This is a business mistake. It wears a doctor to a frazzle. It gives him no time for bill collecting and business matters; no time for patients who naturally feel neglected and are slow pay as a consequence. A doctor can do better work, more good, and build up a more enviable reputation if he coolly takes his time and is careful and painstaking in his examinations and if he takes into consideration the pathologic conditions he meets."

Dr. Dildy is entitled to special praise for his honesty and clear-sightedness regarding the value of professional service. He says: "The prices of our office work and consultations are usually disgracefully small. This 'let me see your tongue' offhand, hurry-scurry kind of professional laziness is not worth the price we get for it. I have lost home, friends and fortune by not examining my patients carefully." Every physician who is honest with himself will admit the truth of the above statement. Every man knows that when he attempts to diminish the amount of care and attention to details which he gives each one of his patients, he thereby diminishes the value of his services. He also knows that, in the long run, the man who takes pains is the man who receives large fees.

Regarding the sins of omission and commission of which we are all of us guilty, Dr. Dildy does not hesitate to express

himself freely and frankly. He says: "We fail to be professional. We talk shop too much. Silence is golden in medicine. My mouth gives me most of my trouble. What I say is what keeps me awake nights. We are too prone to give free advice. We sit and smile while some disgruntled chronic peels our competitor. If, instead, we would shut him up we would grow in our own estimation and make a more favorable impression on the public."

As to his suggestions for remedies for existing evils he is equally emphatic. The following advice is worth considering: "We could be as ethical as the law fraternity, who by their union of action have stamped on our statute books nearly every law by which we are governed. When doctors cast aside all petty jealousies and join and attend medical associations, money comes their way. The best trade I ever made in a business sense was when I paid $2.50 to join my county society."

His closing words of advice are: "Let us do less work and better work. Let us not raise prices until we have raised our standard of service on a par with our ability. Let us work honestly and not get lazy; keep enthusiastic and join our county societies; take postgraduate work and familiarize ourselves with modern medicine. Let us not dicker in futures nor drink booze, but buy books and drink freely of the fountain of knowledge. Let us work some, and play some, read some and collect some, and make money whenever we can."

It is a most gratifying indication of the increased interest in the practical side of medicine that papers like the above are becoming more and more common in our county societies. Every medical organization ought to have, at least once a year, a plain, practical paper on these matters from some clear-headed, progressive member, followed by a general discussion from the members of the society. It will be found in many instances that such a program will help to clear away old animosities and misunderstandings by bringing about a free discussion and consideration as well as stimulating many physicians to a consideration of various phases of these questions, the importance of which has not heretofore been properly estimated.

Legislation in Illinois.

The work of the state legislature has been fairly satisfactory, so far as the medical profession of the state is concerned. Several of the bills were described in Illinois news in THE JOURNAL last week. The two introduced by the State Board of Health were passed, one enlarging the board's authority over health matters, the other authorizing reciprocity in licensure and empowering the board to define a medical college in good standing. The Pure Food Bill was also passed in the last hour of the session. It is impossible to say at present just what are its provisions. The appropriation for the State Board of Health is increased over that of previous years. The appropriation for the State Board of Charities, while not as large as asked for, nor as recommended by Governor Deneen, is large enough to allow some of the reforms contemplated. The bill appropriating $386,000 for the University of Illinois to purchase the property of the College of Physicians and Surgeons in Chicago was passed at the eleventh hour.

A bill directing that all chronic insane patients now kept in county poor houses and asylums be sent to the state institutions at the state's expense will put an end to a feature of county poor houses, which has been the subject of much criticism. For the third time the legislature refused to establish an osteopathic board of examiners or to place an osteopath on the State Board of Health. The so-called anti-vivisection bill, the mental healers' bill, the itinerant vendors' bill, as well as a number of other objectionable bills, failed to pass.

The only bill to which the medical profession can take any exception is the bill establishing a board of examiners in optometry. It is earnestly hoped that this will be vetoed by the governor, as it has been alleged, during both the present session of the legislature and that held two years ago, that it was introduced for ulterior purposes and in favor of certain individuals for personal reasons.

Medical Education and State Boards of Registration

COMING EXAMINATIONS.

NEW YORK State Boards of Medical Examiners, Albany, May 21-24. Chief of Examining Division, Charles F. Wheelock, Albany.

NEBRASKA State Board of Health, State House, Lincoln, May 28-29. Secretary, Dr. Geo. H. Brash, Beatrice.

INDIANA Board of Medical Registration and Examination, Room 120, State House, Indianapolis, May 28-31. Secretary, Dr. W. T. Gott, Indianapolis.

NEW MEXICO Board of Health, Santa Fe, June 3. Secretary, Dr. B. D. Black, Las Vegas.

MINNESOTA State Board of Medical Examiners, St. Paul, June 4. Secretary, Dr. W. S. Fullerton, St. Paul.

MARYLAND Homeopathic Board of Examiners, Baltimore, June 4. Secretary, Dr. Joseph S. Garrison, 848 W. North Ave., Baltimore.

OHIO State Board of Medical Registration and Examination, Cleveland, Columbus and Cincinnati, June 10-12. Secretary, Dr. George H. Matson, Columbus.

KENTUCKY State Board of Health, Louisville, June 11. Secretary, Dr. J. N. McCormack, Bowling Green.

SOUTH CAROLINA State Board of Medical Examiners, Columbia, June 11. Secretary, Dr. W. M. Lester, Columbia.

OKLAHOMA Board of Medical Examiners, Guthrie, June 11-12. Secretary, Dr. J. W. Baker, Enid.

KANSAS State Board of Medical Registration and Examination, Kansas City, Kansas, June 11-13. Secretary, Dr. F. P. Hatfield, Grenola.

IOWA State Board of Medical Examiners, Des Moines, June 11-13. Secretary, Dr. Louis A. Thomas, Des Moines.

FLORIDA Homeopathic Board of Medical Examiners, Jacksonville, June 18. Secretary, Dr. C. W. Johnson, Jacksonville.

DELAWARE Board of Medical Examiners, Dover, June 18. Secretary of the Medical Council, Dr. P. W. Tomlinson, Wilmington.

DELAWARE Homeopathic Board of Medical Examiners, Wilmington, June 18. Secretary, Dr. C. M. Allmond, Wilmington.

NEW JERSEY State Board of Medical Examiners, State House, Trenton, June 18-19. Secretary, Dr. J. W. Bennett, Long Branch.

VIRGINIA State Medical Examining Board, Lynchburg, June 18-21. Secretary, Dr. R. S. Martin, Stuart.

WYOMING Board of Medical Examiners, State Capitol, Cheyenne, June 19. Secretary, Dr. S. B. Miller, Laramie.

MARYLAND Board of Medical Examiners, Baltimore, June 19-22. Secretary, Dr. J. McI'herson Scott, Hagerstown.

PENNSYLVANIA State Board of Medical Examiners, 708 Locust Street, Philadelphia, and in Pittsburg Academy, Ross and Diamond Streets, Pittsburg, June 25-28. Secretary, Dr. Winters D. Hamaker, Meadville.

PENNSYLVANIA Homeopathic Board of Medical Examiners, N. W. Corner 15th and Cherry Streets, Philadelphia, June 25-28. Secretary, Dr. C. S. Middleton, 1523 Girard avenue, Philadelphia.

PENNSYLVANIA Eclectic Board of Medical Examiners, Harrisburg, June 25-28. Secretary, Dr. W. H. Blake, 2116 N. Marvine Street, Philadelphia.

TEXAS State Board of Medical Examiners, Austin, June 25-27. Secretary, Dr. T. T. Jackson, San Antonio.

North Dakota April Report.—Dr. H. M. Wheeler, secretary of the North Dakota State Board of Medical Examiners, reports the written examination held at Grand Forks, April 2-4, 1907. The number of subjects examined in was 14; percentage required to pass, 75. The total number of candidates examined was 10, of whom 9 passed and 1 failed. Three reciprocal licenses were granted at this examination. The following colleges were represented:

PASSED. College.	Year Grad.	Per cent.
University of Minnesota	(1905)	85, 80
Lincoln Med. Coll	(1904)	82
Jefferson Med. Coll.	(1904)	87
Laval University, Quebec	(1906)	78
University of Toronto, Ont	(1903)	82
University of Christiania, Norway (1898) 85, (1903) 85, (1904) 75		
FAILED.		
Trinity Med. Coll.	(1903)*	
LICENSED THROUGH RECIPROCITY.		Reciprocity with
National Medical University, Chicago	(1906)	Illinois.
Rush Med. Coll.	(1906)	Illinois.
University of Iowa	(1906)	Iowa.

*Percentage not given.

California's New Examining Board.—At a meeting of the new Board of Medical Examiners, May 3, in San Francisco, the organization was completed as follows: President, Lincoln Cothran, San José; vice-president, J. Park Dougall, Los Angeles; treasurer, E. Sisson, Oakland; secretary, Charles L. Tisdale, Alameda; associate secretary, F. Dudley Tait, San Francisco. It was unanimously resolved "to cooperate with state examining boards and state medical societies in giving publicity to revoked certificates and irregularities in colleges and to send a copy of said resolution to every state board and to each

of the California colleges." The next examination will take place in San Francisco, Aug. 6, 1907. All applications must be filed at least two weeks prior to said date.

Texas Holds Last Meeting Under Old Law.—Dr. T. T. Jackson, secretary of the regular Board of Medical Examiners, states that a meeting of that board will be held at Austin, June 25, 26 and 27, 1907, which will be the last meeting before the new law goes into effect. This will be the last examination to which any person will be admitted except one who has graduated from a reputable medical college having not less than four sessions of at least five months each.

Society Proceedings

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, Atlantic City, June 4-7.

Illinois State Medical Society, Rockford, May 21-23.
Connecticut State Medical Society, Hartford, May 22-23.
Indiana State Medical Association, Indianapolis, May 22-24.
Arizona Medical Association, Bisbee, May 28-29.
South Dakota State Medical Association, Sioux Falls, May 28-30.
Amer. Laryn., Rhin. and Otol. Society, New York, May 30-June 1.
American Academy of Medicine, Atlantic City, N. J., June 1-3.
American Association of Medical Examiners, Atlantic City, June 3.
American Gastro-Enterological Association, Atlantic City, June 3-4.
American Proctologic Society, Atlantic City, June 3-4.
American Urological Association, Atlantic City, June 3-4.
Maine Medical Association, Lewiston, June 12-14.
Massachusetts Medical Society, Boston, June 11-12.
Medical Society of the State of North Carolina, Morehead City, June 11-13.
Rhode Island Medical Society, Providence, June 13.
Medical Society of New Jersey, Cape May, June 25-27.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

Third Annual Conference, held at Chicago, April 29, 1907.

The Chairman, DR. A. D. BEVAN, Chicago, presiding.

Besides the members of the Council, eighty-four delegates were present, representing 22 state examining boards, 18 state medical societies, the 3 departments of the government services, 3 college associations, and 14 literary and medical colleges.

DELEGATES.

FROM STATES AND STATE BOARDS: *Colorado*, S. D. Van Meter, Denver; *Idaho*, W. F. Howard, Pocatello; *Illinois*, George W. Webster, Chicago; *Indiana*, W. A. Spurgeon, Muncie, and W. T. Gott, Crawfordsville; *Iowa*, A. P. Hanchett, Council Bluffs; *Kentucky*, Chester A. Mayer, Louisville; *Massachusetts*, E. B. Harvey, Boston; *Michigan*, Beverly D. Harison and Oscar Le Seure, Detroit; *Minnesota*, W. S. Fullerton, St. Paul; *Missouri*, R. H. Goodier, Hannibal, and A. H. Hamel, DeSoto; *Nebraska*, Benjamin F. Bailey, Lincoln; *New Jersey*, J. W. Bennett, Long Branch; *New York*, George E. Gorham, Albany, and William Warren Potter, Buffalo; *North Dakota*, F. R. Smyth, Bismarck; *Ohio*, H. E. Beebe, Sidney, and A. Ravogli, Cincinnati; *Oklahoma*, J. W. Baker, Enid; *Oregon*, A. C. Panton, Portland; *Utah*, Ralph T. Richards, Salt Lake City; *Vermont*, W. Scott Nay, Underhill; *Washington*, J. B. Eagleson, Seattle; *West Virginia*, John L. Dickey, Wheeling; *Wisconsin*, W. T. Sarles, Sparta, A. P. Andrus, Ashland, J. V. Stevens, Jefferson, P. H. McGovern, Milwaukee, and A. B. Bailey, Fennimore.

FROM STATE MEDICAL SOCIETIES: *Illinois*, Charles L. Mix, Chicago, and Frank P. Norbury, Jacksonville; *Indiana*, L. F. Page, Indianapolis; *Iowa*, D. S. Fairchild, Des Moines, and C. J. Saunders, Fort Dodge; *Kansas*, M. F. Jarrett, Fort Scott; *Kentucky*, W. H. Wathen, Louisville; *Maine*, Charles E. Williams, Auburn; *Maryland*, Charles F. Bevan, Baltimore; *Missouri*, Walter B. Dorsett, St. Louis; *Nebraska*, H. Winnett Orr, Lincoln; *North Dakota*, A. L. McDonald, Grand Forks; *Ohio*, Robert H. Grube, Xenia, and R. E. Skeel, Cleveland; *Oklahoma*, J. O. Glenn, Stroud, and D. C. Hall, Norman; *Tennessee*, George H. Price, Nashville; *Utah*, S. C. Baldwin, Salt Lake City; *Virginia*, R. H. Whitehead, Charlottesville; *West Virginia*, S. L. Jepson, Wheeling; *Wisconsin*, E. Evans, La Crosse.

FROM OTHER ORGANIZATIONS: *United States Army*, Assistant Surgeon-General P. F. Harvey, Chicago; *United States Navy*, Assistant Surgeon N. T. McLean, Chicago; *United States Public Health and Marine-Hospital Service*, Surgeon G. B. Young, Chicago; *Southern Medical College Association*, Lewis C. Morris, Birmingham; *Association of American Medical Colleges*, W. J. Means, Columbus, Ohio, and Fred C. Zapffe, Chicago; *American Medical Association*, George H. Simmons, Chicago; *American Institute of Homeopathy*, Charles J. Walton, Cincinnati, N. B. Delamater, Chicago, and Benjamin F. Bailey, Lincoln, Neb.; *American Medical Editors' Association*, Allen B. Kanavel, W. C. Abbott and W. F. Waugh, Chicago.

FROM LITERARY AND MEDICAL COLLEGES: *Northwestern University*, Dean Thomas F. Holgate, Evanston; *University of Chicago*, Dean Albion W. Small, Chicago; *Iowa College*, President J. H. T. Main, Grinnell; *Vanderbilt University*, Chancellor J. H. Kirkland, Nashville, Tenn.; *Lake Forest University*, R. H. McKee and Cornelius Betien, Lake Forest, Ill.; *University of Wisconsin*, Charles R. Bardeen, Madison; *Lewis Institute*, Lewis Gustafson, Chicago; *Rush Medical College*, Frank Billings, John M. Dodson, and Ludwig Hektoen; *Indiana University School of Medicine*, Burton D. Myers, Bloomington; *Northwestern University Medical School*, J. H. Long and N. S. Davis, Chicago; *College of Physicians and Surgeons*, Charles S. Bacon, Chicago; *University of Iowa, Homeopathic Department*, George Royal, Iowa City; *University of Michigan, Homeopathic Department*, W. B. Hinsdale, Ann Arbor; *American College of Medicine and Surgery*, William L. Secor, Chicago.

Others present were Richard M. Fletcher and A. R. McDonald, Chicago.

The conference was called to order at 10 a. m. by the chairman, Dr. Arthur Dean Bevan, Chicago, who delivered the following address:

CHAIRMAN'S ADDRESS.

The Council on Medical Education of the American Medical Association has invited you to this third annual conference to discuss the subject of medical education in America and to ask your advice and cooperation in the effort to elevate the standards of medical education in this country.

We welcome you to this conference and thank you for your presence in the name of the American Medical Association.

It would seem well first to review briefly the work of the Council as presented in the reports of the last two annual conferences and to present to you fully the work of the past year. In 1904 the Council on Medical Education was created by the American Medical Association to act as its agent in the efforts to elevate the standards of medical education. Its functions are to make an annual report on the existing conditions of medical education and to make suggestions which may lead to the gradual improvement in these conditions.

THE PREVIOUS HANDICAP.

The work of the committees on education which, before 1904, had undertaken this task had not been as satisfactory as was desired, chiefly because new men were appointed on this committee each year, and this short period was not sufficient time to enable the members of the committee to become familiar with the enormous and complex problems presented by the medical laws of fifty states and territories, by the widely varying conditions found in the different sections of our country and the even greater differences in standards of both preliminary requirement and medical curriculum demanded and offered by more than one hundred and fifty medical schools.

These committees worked under the disadvantage of having no permanent organization, no permanent headquarters, no permanent secretary and no appropriation, without which an extensive investigation was impossible.

The Council on Medical Education was created with the purpose of overcoming some of these disadvantages. It is the desire to make it a permanent national bureau on medical education, with permanent headquarters, with a trained clerical force in charge of the large amount of correspondence and statistical

work which is required in order to collect and disseminate the facts in regard to the medical laws of more than fifty states, the results of examinations before more than fifty state licensing boards and the licensure each year of more than seven thousand physicians; the work of the more than one hundred and fifty schools, and we hope before long the facts in regard to the preliminary education of each matriculate in medicine.

Such a national bureau on medical education can have no legal powers. It can not be too often repeated that the legal power to control medical practice rests, and should always and will always rest, in the hands of the state licensing boards.

THE NEED OF A NATIONAL BUREAU.

Nevertheless it is clear that a national bureau of medical education is a necessity, and it is also clear that the publicity given to the evidence which such a bureau can collect may be of great service in securing needed reforms.

The Council felt from the beginning that it was of the greatest importance to secure the cooperation of those most influential and most interested in the matter of medical education, and with that end in view established an annual conference on medical education at which it could present to the representatives of the state boards and all specially interested the results of its year's work and confer with them as to the best line of future action.

The first annual conference was held in Chicago, April 20, 1905. At this conference the questions of preliminary educational requirement, the medical curriculum and the relation of the college of liberal arts to the medical school were discussed. As a result of this conference the Council formulated an ideal standard to work for in the future and a minimum standard for the time being. This last you are all familiar with. It is briefly a preliminary education sufficient to enable the student to enter the freshman class of our recognized universities and the passing on this education by a state official and the graduation from an approved medical school, requiring a four-year course of not less than 30 weeks, 30 hours each week, each year, and finally the passing of an examination for licensure before a state board.

May 12, 1906, the second annual conference was held, at which probably the most important subject was the report of the standing of medical schools based on the showing made by their graduates before state boards. The medical schools were divided into four classes: Table 1, with less than 10 per cent. of rejections; Table 2, with from 10 to 20 per cent. of rejections; Table 3, with more than 20 per cent. of rejections, and Table 4, an unclassified list of schools which did not offer sufficient data to enable them to be classified. These tables will be published each year and have, it is believed, been of much service in elevating medical standards.

At the last conference an important committee was appointed, with instructions to report at this conference; the committee on the question of giving credit for subjects required in the medical curriculum taken in colleges of liberal arts. Since the last conference, at a meeting of the Council, it was unanimously agreed to recommend that by 1910, in addition to the preliminary education sufficient to enable the student to enter the freshman year of our recognized universities, that one year of physics, chemistry and biology and one modern language, preferably German, be required before the student can begin the study of medicine; a committee to present this important subject will report at this conference.

Probably the most important work undertaken by the Council during the past year has been the personal inspection of the medical schools of the United States to ascertain the exact character of their work and the attempt to classify these schools and mark them on a civil service basis. This has been a large and onerous task, the country was divided into sections and the 160 schools visited by some member of the Council or by the secretary, in most instances by both the secretary and some member of the Council.

This work has been, we believe, of much value and has enabled the Council to form a better idea of existing conditions of medical education than could be obtained in any other way. The schools were marked as an individual might be in taking a civil service examination.

The following ten points making a possible 100 were taken into consideration:

1. Showing of graduates before state board examinations.
2. Requirements and enforcement of satisfactory preliminary education.
3. Character and extent of college curriculum.
4. Medical school buildings.
5. Laboratory facilities and instructions.
6. Dispensary facilities and instruction.
7. Hospital facilities and instruction.
8. Extent to which first two years are officered by men devoting entire time to teaching and evidences of original research work.
9. Extent to which the school is conducted for the profit of the faculty directly or indirectly rather than teaching.
10. Libraries, museums, charts, etc.

These marks were obtained from a full report furnished by the school and also from personal inspection covering these points.

We have then arranged the school into six classes: A, B, C, D, E and F.

The A class, being from 90 to 100.

The B class, being from 80 to 90.

The C class, being from 70 to 80.

These three classes above 70 form an accepted list and it is recommended that the state boards recognize these schools as being up to standard.

The D and E class, being from 50 to 70.

It is believed that these schools should be recognized, provided that they make improvements, which will bring their work up to the necessary grade of 70.

The F class, being 50 and below.

It is believed that these schools should not receive the recognition of the state boards.

In making this inspection the Council has been exceedingly lenient in marking the poorer schools. It believes that this first report should be presented to the state licensing boards and to this conference and should not be published with details at present; that a minimum standard of what shall constitute a recognized medical school be agreed on and that the schools below this standard be given a reasonable time to bring themselves up to this acceptable standard. In case they do not, their standing should be published and they should no longer be recognized by the state boards.

There are in this country 160 medical schools; about as many as there are in Great Britain, Germany, France and Austria combined. The schools in this country represent all grades, from the very highest, as high probably as those of any country in the world, to the very lowest, a number being little better than diploma mills. On this inspection we have found schools which are absolutely worthless, without any equipment for laboratory teaching, without any dispensaries, without any hospital facilities; some which are no better equipped to teach medicine than is a Turkish-bath establishment or a barber-shop. Many of them are little more than quiz classes, in which men are drilled for the purpose of passing state board examinations. Some of the schools which we inspected are conducted by men in good standing in the profession, but in about the way that schools were conducted 25 or 30 years ago; simply didactic lectures and quiz classes without any proper laboratory or clinical facilities, and some of these men apparently do not realize the very bad work they are doing in the light of modern medicine.

I desire to present a few facts shown by this inspection:

1. Of the 160 schools, 81 received markings above 70, 47 markings between 50 and 70, 32 below 50.

2. It was clearly shown by this inspection that medical schools conducted solely for profit are a menace and should not be recognized.

3. Night schools attempting to educate a student in the hours from 7 to 10 p. m., usually after the student has devoted his day to some occupation in which he earns his living, should not be recognized by any state board, especially when it is found in the good schools that four years of nine months six days in the week from 8 a. m. to 5 p. m., is barely sufficient time to devote to a medical course.

4. Many schools are conducted for the purpose of preparing a student to pass a state board examination and not with the object of making him a competent practitioner.

V 4
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5. A student can be prepared in a quiz class in a comparatively short course to pass a written examination before a state board and yet be absolutely ignorant of laboratory work, dispensary or hospital work, and utterly incompetent to begin the practice of medicine. This fact shows the necessity of inspecting the schools as to the actual character of their work, of making the written examination very practical and of including a practical examination in the laboratory and possibly later on patients in the state board examination for licensure.

6. The most important fact brought out in this inspection is this: In this country we need money for medical education. It costs more to educate a medical student than he can pay in the way of fees. Medical education must secure state aid and private endowment.

7. Every state university now in existence or established later should have a strong, liberally supported medical department. No better investment can be made by any state than the establishment and support of such a medical department. Such a department, at least the clinical years, should be in the largest center of population in the state, and in close touch with the various departments of the state board of health.

8. The public must be taught the necessities and the possibilities of modern medicine, and philanthropists shown that medicine well deserves the same support that has been given to theology, to colleges of liberal arts, to libraries, etc. Philanthropists will not endow medical schools which are private corporations and conducted for profit. Such schools should change their organization so that they can ask for and secure necessary endowments.

9. It is in the power of the state boards and the organized profession to place American medicine on an acceptable plane.

10. Already about 50 schools have agreed to require, by 1910 or before, one year of university physics, chemistry and biology, and one language as a preliminary education before matriculating in medicine.

11. It is necessary to agree on a standard of what shall constitute a medical college in good standing. If, as a result of this conference, the delegates from the state boards agree to require within a reasonable time the following standard of our medical schools, we should soon place ourselves on a plane equal to that of any country in the world:

(a) Preliminary education sufficient to enter the freshman class of our universities plus, after a date to be agreed on, one year of physics, chemistry and biology and one modern language. This preliminary education to be passed on by an officer selected by the state licensing board.

(b) Two years of study, largely laboratory work in anatomy, physiology, pharmacology and pathology in well equipped laboratories, officered by trained men devoting their time to those subjects.

(c) Two years of clinical work largely in dispensaries and hospitals, the dispensary material in the proportion of at least 10,000 per year for 100 students in the senior class and the hospital in proportion to a daily average of 200 patients to 100 students in the senior class.

(d) The curriculum and character of both laboratory and clinical work to be satisfactory to the state licensing board, which shall inspect the same each year.

If the state boards represented at this conference will unite to secure these requirements and notify the schools that unless they come up to this standard by a date to be agreed on, that they will not be recognized, we shall take the greatest step forward that has ever been made in medical education in this country. What the members of this conference agree on will not be legally binding on any state board or any school, but it will be of great weight, because it will ultimately be agreed to by the majority of the state boards, and no school can continue to exist in defiance of the rulings of any considerable number of state boards.

Our inspection has shown that there are a number of schools which have no equipment to teach medicine, no posible right to teach medicine nor to claim recognition. It has shown that there are a number of other schools that are deficient, and these should be urged to secure proper equipment and to come up to a standard sufficient to secure general recognition.

This work shows the necessity of a system of annual inspection made by the state boards, possibly jointly with a committee from the Council on Medical Education, so that the results of the entire country can be compiled and furnished to each state board as an official list of colleges worthy of recognition.

As a result a number of schools will consolidate, as they have already done in Kansas City, Louisville, Columbus and other cities; a number of proprietary schools which are conducted for the purpose of profit, are in fact conducted at a loss to their faculties and many of these will go out of existence.

Instead of 160 schools as we now have, we should probably have less than 100 schools which could secure the general recognition of the state boards. And these schools we must unite to strengthen. We must secure for them state aid and private endowment, we must start an active, organized propaganda for money for medical education, we must enlist in this service the local and state medical societies, the state licensing boards, the national medical associations, individual physicians and citizens of influence, and we must make these efforts permanent and continuous. We must make for medicine in this country of great wealth and great population and of high average intelligence the place which it deserves.

SECRETARY'S REPORT.

At the conclusion of the chairman's address, the secretary of the Council, Dr. N. P. Colwell, presented a report covering the work of the past year.

Mr. Chairman and Gentlemen:—The work of the Council on Medical Education for the past year is as follows:

INSPECTION OF MEDICAL COLLEGES.

In order to obtain a more accurate knowledge of conditions under which medical schools are working and of the laboratory and clinical facilities held by each college for teaching modern medicine, the Council had one or more representatives visit each of the 160 medical colleges in the country. This was supplemented by obtaining written reports from the colleges.

In this research the Council has endeavored to treat all colleges alike, making allowances for the differences between the various schools of medicine, feeling that where the college upheld proper standards of preliminary education, offered good courses in the fundamental branches of medicine and had a fair amount of clinical material, the minor differences in treatment could be well ignored. Two reputable practitioners of any one school of medicine will probably differ fully as much in their methods of treatment when in actual practice, as will practitioners of two different schools of medicine.

In classifying the colleges every detail has been carefully studied. The size of the city where the college is located, as well as any and all special conditions, such as state hospitals, etc., whereby clinical material is made available, were inquired into. The college buildings were considered with regard to their number, size, condition, arrangement, proximity and utility. Hospitals were also considered, careful note being made of the number of beds, the extent to which students have access, its proximity to and control by the college. Dispensaries have received proper attention—note being made in regard to the rooms, equipment, number of patients, number of visits, use of by the students and nearness to the college. Each subject of the college curriculum was individually studied—for the fundamental branches, note being made of the size and equipment of laboratories, the presence of paid teachers devoting their entire time to instruction and research, and, for the clinical branches, the amount and variety of clinical material available to teach the subject under consideration.

The supply of charts, models and microscopes were particularly inquired into and at the same time the size of the classes needing to use them. Careful notes regarding the medical library and the museum were made, together with their accessibility and usefulness for teaching. Careful investigation was made in regard to the entrance requirements, the character and extent of the college curriculum and the methods of teaching of each college. The sources of income were noted and inquiry was cheerfully made as to the future prospects of each school. The showing made by the graduates of

each college before state examining boards was naturally taken account of. College announcements were carefully reviewed and a careful comparison made with the facts learned from the actual inspection. The character of the men composing the college faculty was considered, every evidence of activity was noted and due credit given where good, honest work was being done. In fact, care was taken to get every fact available that would give an accurate knowledge of what each college was and the kind of work it was doing.

In order to properly credit each school the data collected was grouped under ten different heads, these being so selected that they might have equal weight and, therefore, be marked on the scale of 100. An average taken then represented the standing of the school. The ten heads are as follows: (1) The successes of graduates of the school before state examining boards; (2) the question of requirement and enforcement of satisfactory preliminary education; (3) the general character and extent of college curriculum; (4) the medical school buildings; (5) laboratory facilities and instruction; (6) dispensary facilities and instruction; (7) hospital facilities and instruction; (8) extent to which the first two years are officered by men devoting their entire time to teaching and the evidences of original research; (9) extent to which the school is conducted as an institution for teaching medicine, rather than as a means for the profit of the faculty, directly or indirectly; and (10) the owning of a library, museum, charts, models, stereopticons, etc. The result from this research is as follows: Of the 160 schools, 81 or 50.6 per cent., were above 70; 47, or 20 per cent., were between 50 and 70, while 32, or 19.6 per cent., were below 50.

STATE BOARD EXAMINATIONS.

A year ago at our conference a classification of the medical schools was made based on the state board examinations for 1904. It will be remembered that 47 schools received less than 10 per cent. of failures, 27 were between 10 and 20 per cent., and 38 had more than 20 per cent. There were 37 schools in regard to which there was insufficient data to permit of classification.

With the report of the state board examinations for 1905, which was published in THE JOURNAL of the American Medical Association, Aug. 25, 1906, another classification was made resulting in 45 schools having less than 10 per cent. of failures, 22 schools with between 10 and 20 per cent., and 40 schools above 20 per cent. There were 46 schools in the unclassified list.

By adding together the figures for 1904 and 1905, we get sufficient data to reduce the unclassified list to eight colleges, thus allowing us to classify 135 schools on the basis of state board examinations. The result has been 41 schools having less than 10 per cent. of failures, 40 schools having between 10 and 20 per cent., and 54 schools having over 20 per cent.

	Less than 10.	10 to 20.	Above 20.	Unclassified.	Total.
1904	47	27	38	37	149
1905	45	22	46	40	153
1904-5	41	40	54	8	143

For the years 1904 and 1905 the colleges can be further subdivided as follows, omitting the eight unclassified:

Less than 10 per cent. of failures	41
Between 10 and 20 per cent.	40
Between 20 and 30 per cent	16
Between 30 and 40 per cent.	19
Above 40 per cent. of failures	19
	135

COLLEGES HAVING LESS THAN 10 PER CENT. OF FAILURES.

ALABAMA.
Birmingham Medical College ..... 0.

CALIFORNIA.
University of California 6.8

COLORADO.
Denver Homeopathic College ..... 0.
Colorado School of Medicine ..... 0.

CONNECTICUT.
Yale University, Medical Department 2.9

GEORGIA.
University of Georgia 2.9

ILLINOIS.
College of Physicians and Surgeons, Chicago 7.9
Northwestern University, Chicago 3.4
Rush Medical College 7.1
Dearborn Medical College 2.1

IOWA.
Sioux City College of Medicine 8.8
State University of Iowa, Homeopathic 7.7

LOUISIANA.
Tulane University of Louisiana 9.5

MAINE.
Medical School of Maine 8.9

MARYLAND.
Johns Hopkins University Medical School 0.8
Woman's Medical College, Baltimore ..... 0.

MASSACHUSETTS.
Boston University, School of Medicine 7.3
Harvard University 1.5

MICHIGAN.
University of Michigan, Homeopathic Department 5.9

MINNESOTA.
University of Minnesota, Department of Medicine 7.0

MISSOURI.
University of Missouri 6.2

NEBRASKA.
Creighton Medical College, Omaha 7.4

NEW HAMPSHIRE.
Dartmouth Medical College 9.1

NEW YORK.
Albany Medical College 4.7
College of Physicians and Surgeons, New York 3.9
Cornell University 1.4
Long Island College Hospital 7.8
New York Homeopathic Medical College 5.1
New York Women's Medical College 9.5
Syracuse University 1.4
University of Buffalo 4.6

NORTH CAROLINA.
University of North Carolina, Raleigh 7.7

OHIO.
Western Reserve University, Cleveland 7.7
Cleveland College of Physicians and Surgeons 5.7
Medical College of Ohio 8.7

PENNSYLVANIA.
University of Pennsylvania 5.8
Hahnemann Medical College, Philadelphia 3.6
Jefferson Medical College 8.8
Woman's Medical College, Philadelphia 6.6

TEXAS.
University of Texas ..... 0.

VIRGINIA.
University of Virginia 8.2

COLLEGES HAVING BETWEEN 10 AND 20 PER CENT OF FAILURES.

ALABAMA.
Medical College of Alabama, Mobile 11.5

CALIFORNIA.
Cooper Medical College, San Francisco 14.3

COLORADO.
Denver and Gross Medical College 12.8

DISTRICT OF COLUMBIA.
George Washington University, Washington, D. C. 10.9
Georgetown University, Washington, D. C. 15.8

GEORGIA.
Atlanta College of Physicians and Surgeons 17.2

ILLINOIS.
American Medical Missionary College, Chicago 11.8
Bennett College of Eclectic Medicine and Surgery, Chicago 15.8
Hahnemann Medical College, Chicago 11.2
Hering Medical College, Chicago 12.2
National Medical University, Chicago 18.5
American College of Medicine and Surgery, Chicago 14.5

INDIANA.
Indiana Medical College 16.3

IOWA.
Drake University College of Medicine, Des Moines 15.1
State University of Iowa, Medical Department 10.4

KANSAS.
Kansas Medical College, Topeka 17.1

MASSACHUSETTS.
Tufts Medical College, Boston 11.7

MICHIGAN.
Detroit College of Medicine 13.3
University of Michigan, Medical Department 11.0

MINNESOTA.
University of Minnesota, Homeopathic Department 16.7

MISSOURI.
St. Louis University 15.1
St. Louis College of Physicians and Surgeons 18.9
Washington University, St. Louis 15.1

NEBRASKA.
University of Nebraska, Omaha 16.3

NEW YORK.
Eclectic Medical College, New York 11.1
University and Bellevue Medical College, New York 12.6

NORTH CAROLINA.
North Carolina Medical College, Charlotte 18.0

OHIO.
Miami Medical College, Cincinnati 11.5
Ohio Medical University, Columbus 17.7
Starling Medical College 19.8

PENNSYLVANIA.
Medico-Chirurgical College, Philadelphia 18.5
Western Pennsylvania Medical College 15.7

SOUTH CAROLINA.
Medical College of South Carolina, Charleston 15.0

TENNESSEE.
University of Nashville 17.1
Vanderbilt University, Nashville 11.4

TEXAS.
Fort Worth University, Ft. Worth, Texas 12.5

VERMONT.
University of Vermont 15.4

VIRGINIA.
Medical College of Virginia, Richmond 14.7
University College of Medicine, Richmond 10.3

WISCONSIN.
Milwaukee Medical College 14.3

COLLEGES HAVING BETWEEN 20 AND 30 PER CENT. OF FAILURES.

CALIFORNIA.
Hahnemann Medical College, San Francisco 25.0

GEORGIA.
Georgia College of Eclectic Medicine and Surgery, Atlanta 28.0

ILLINOIS.
Illinois Medical College, Chicago 25.0
Jenner Medical College, Chicago 20.0

INDIANA.
Eclectic Medical College of Indiana 22.2

IOWA.
Keokuk Medical College, College of Physicians and Surgeons 25.7

MARYLAND.
Baltimore Medical College 21.8
College of Physicians and Surgeons, Baltimore 22.0
Southern Homeopathic Medical College, Baltimore 21.1
University of Maryland, Baltimore 24.8

MISSOURI.
University Medical College, Kansas City 25.0

NEBRASKA.
Lincoln Medical College, Nebraska 24.5

OHIO.
Cleveland Homeopathic Medical College, Ohio 20.6
Eclectic Medical Institute, Cincinnati 28.1
Toledo Medical College 25.0

WISCONSIN.
Wisconsin College of Physicians and Surgeons 22.7

COLLEGES HAVING BETWEEN 30 AND 40 PER CENT. OF FAILURES.

ARKANSAS.
University of Arkansas 33.3

CALIFORNIA.
University of Southern California 31.1

DISTRICT OF COLUMBIA.
Howard University, Washington, D. C. 34.2

KENTUCKY.
Kentucky School of Medicine 36.1
Louisville Medical College 32.9
University of Louisville 35.9
Kentucky University, Louisville 37.3

MASSACHUSETTS.
College of Physicians and Surgeons, Boston 36.5

MICHIGAN.
Michigan College of Medicine and Surgery 33.3

MISSOURI.
Kansas City Hahnemann Medical College 38.5
Eclectic Medical University, Kansas City 33.3
Barnes Medical College, St. Louis 32.6
Homeopathic Medical College of Missouri 36.3

OHIO.
Pulte Medical College, Cincinnati 39.1

OREGON.
University of Oregon, Portland, Ore 34.5
Willamette University, Salem, Ore 30.4

TENNESSEE.
Tennessee Medical College, Knoxville 34.4
Meharry Medical College, Nashville 37.5
Memphis Hospital Medical College 36.4

COLLEGES HAVING ABOVE 40 PER CENT. OF FAILURES.

CALIFORNIA.
California Medical College 61.1
College of Physicians and Surgeons, San Francisco 41.3

ILLINOIS.
College of Medicine and Surgery, Chicago 44.1

INDIANA.
Physio Medical Medical College of Indiana 47.1

KENTUCKY.
Hospital College of Medicine, Louisville 45.8

LOUISIANA.
Flint Medical College, New Orleans 66.7

MARYLAND.
Baltimore University, School of Medicine 67.8
Maryland Medical College 47.8

MINNESOTA.
Hamline University, Minneapolis 40.0

MISSOURI.
Ensworth Central Medical College, St. Joseph 45.2
American Medical College, St. Louis 44.4

NORTH CAROLINA.
Leonard Medical College, Raleigh, N. C. 58.7

TENNESSEE.
Knoxville Medical College 90.0
University of Tennessee, Nashville 42.0
University of the South, Sewanee, Tenn. 48.8
Chattanooga Medical College 40.9
University of West Tennessee 60.0

TEXAS.
Baylor University, Dallas, Texas 44.4
Gate City Medical College, Texarkana, Texas 60.0

As has long been recognized, the weakest part of our system of medical education to-day is the low standard of preliminary requirements. There was a time, doubtless, when low standards were excusable, but now when we consider the large number of schools and colleges which offer abundant opportunities to any one who has ambition enough to secure a liberal education whether he has ready money or not, there is scarcely any excuse for not requiring a fair standard of preliminary education. There are still a number of schools where no attention apparently is paid to the students' entrance qualifications.

The weakest point in the equipment and teaching facilities of medical schools is, naturally, the lack of laboratories and equipment for the work of the first two years of the medical course, or, as they are often called, the fundamental branches. The need of good, well-equipped laboratories, as well as having them officered by trained instructors paid to devote their entire time to teaching and research naturally makes this part of the medical course the most expensive. The teaching of the fundamental branches does not carry the advantage to the practicing physician which is found with the clinical branches, therefore, it is difficult to get good men to devote their time to these branches unless they are paid definite salaries. A few schools were found which were weak in this part of the course, although strong in clinical facilities.

Some schools are not developing the college dispensary as they might. Where good quarters have been provided for this department and good men placed on the attending staff, a larger attendance is invariably the result. Some schools situated in large cities, where ample clinical material could be had, are failing to take advantage of it. Others with abundant means at their disposal lack the activity in modern teaching and research which they might have.

Of course, the medical schools need money and all degrees of such need are to be seen. Many schools are dependent solely on the fees of the students to cover the teaching expenses. Some are keeping the teaching expenses within the amount received, and are, therefore, quite deficient in equipment and facilities for teaching modern medicine. Some schools, however, which, although practically depending on students' fees, are manned by faculties who not only spend their time and energy in teaching without pay, but have stood by the school with a devotion most praiseworthy, this being an encouraging fact in medical teaching of to-day. The development of some of these schools, even with the small amount received from students' fees, has been remarkable. Some have fixed high standards and held to them, even though these standards have reduced the number of students and thereby reduced the financial income of the school.

The past few years has witnessed the expenditure of a large amount of money for medical education. New buildings with spacious laboratories and elaborate equipment were to be seen in all sections of the country. Medical education is beginning to attract the attention of men of wealth to its needs, and endowments will follow sooner or later. State legislatures are more readily making appropriations for the development of the medical departments of state universities. From the financial point of view there is reason to believe that a new era is dawning for medical education.

A few important mergers have taken place during the past few months—at Louisville, Ky., where four schools merged into two, and at Columbus, Ohio, where the two colleges merged into one. Combinations at two or three other points also are in prospect. There are still other places where much better medical education could be given, if two or more schools would join hands, thereby creating one strong school from two or more weaker ones.

The work of the Council in an effort to secure the adoption of the standards recommended by the American Medical Asso-

ciation has had gratifying results. During the latter part of last June a letter was sent to each medical school of the country clearly stating that portion of the American Medical Association's ideal standard relating to the preliminary year in physics, chemistry, biology and languages, and asking whether the faculty of the school would be willing to adopt this as a requirement to apply to all students entering after Jan. 1, 1910. At that time only seven colleges in the country were requiring one or more years of work in a college of arts for admission. There are now 46 medical schools, which either already require one or more years of work in a college of arts or have voted to require this preliminary year in physics, chemistry, biology and languages by Jan. 1, 1910. There are at least 10 other colleges still to be heard from, which will probably make the same requirement. Of the 46 schools named at least 19 colleges have already voted to require at least two years of preliminary work in a college of arts, and 8 others intend to make two years their minimum requirement, although the date for the requirement of the second year has not been definitely determined. On the list are to be found a few weak schools, but the great majority are those which can be fully depended on to live up to their requirements.

YEARS IN A COLLEGE OF ARTS REQUIRED FOR ENTRANCE.

The following medical colleges either already require as a prerequisite to the study of medicine, in addition to a four-year high school education or its equivalent, one or more years in a college of liberal arts, or have adopted the requirement of a preliminary year to include the subjects of physics, chemistry, biology and one language, to become effective on or before Jan. 1, 1910.

	Years.	In force.
CALIFORNIA.		
University of California	2	Now.
Coll. of Physicians and Surgeons, San Francisco.	1	1910
Oakland College of Medicine and Surgery	1	1910
CONNECTICUT.		
Yale Medical School	2	1909-10
DISTRICT OF COLUMBIA.		
George Washington University	2	1909-10
Georgetown University	1	1910
ILLINOIS.		
Rush Medical College	2	Now.
Northwestern University Medical School	2	1909-10
American Medical Missionary College	1	1909-10
American Medical Missionary College	2	1910-11
College of Medicine and Surgery	1	1910
Jenner Medical College	1	1910
Illinois Medical College	1	1910
American College of Medicine and Surgery	1	1910
IOWA.		
Drake University Medical Department	2	1910
Sioux City College of Medicine	1	1910
INDIANA.		
Indiana University Medical School	1	1910
State College of Physicians and Surgeons	1	1910
KANSAS.		
University of Kansas Medical School	1	1908-09
University of Kansas Medical School	2	1909-10
Kansas Medical College	1	1910
MARYLAND.		
Johns Hopkins Medical School	Degree	Now.
College of Physicians and Surgeons, Baltimore	1	1910
MASSACHUSETTS.		
Harvard University Medical School	Degree	Now.
College of Physicians and Surgeons, Boston	1	1910
MICHIGAN.		
University of Michigan (R.)	2	1909
MINNESOTA.		
University of Minnesota (R.)	2	1907-08
University of Minnesota (H.)	2	1907-08
MISSISSIPPI.		
University of Mississippi Medical Department	1	1910
MISSOURI.		
University of Missouri	1	Now.
St. Louis University, Medical Department	1	1910
Washington University, Medical Department	1	1910
NEBRASKA.		
University of Nebraska School of Medicine	1	1909
NEW YORK.		
College of Physicians and Surgeons, New York	1	Now.
NORTH CAROLINA.		
University of North Carolina	1	1909
Wake Forest School of Medicine	2	1908-09
NORTH DAKOTA.		
University of North Dakota	2	Now.
OHIO.		
Medical College of Ohio	1	1910
Western Reserve University	3	Now.
Cleveland College of Physicians and Surgeons	1	1910
Cleveland Homeopathic Medical College	1	1910
Miami Medical College	1	1910
OKLAHOMA.		
University of Oklahoma	1	1910
PENNSYLVANIA.		
University of Pennsylvania	1	1910-09
University of Pennsylvania	2	1910-11
TENNESSEE.		
University of Tennessee	1	1910
TEXAS.		
University of Texas	1	1909
UTAH.		
University of Utah, Medical Department	1	1909-10
University of Utah, Medical Department	2	1910-11
VIRGINIA.		
University of Virginia	2	1910

Practically all these schools have expressed their intention to require that the year in physics, chemistry and biology be taken in a college of arts.

LAWS GOVERNING MEDICAL PRACTICE.

The progress toward securing high standards in the various states through the activity of the examining boards has been very encouraging. Many states have secured new laws or important amendments, resulting in more uniform and higher standards. A year ago 13 states still allowed non-graduates to obtain the license to practice medicine. Of that number the examining boards of two of these states, Oregon and Hawaii, have recently established the graduation requirement by board rulings, being legally authorized to do so. Of the other eleven states, however, amendments to the state laws were necessary. Efforts have been made to secure these amendments by practically all, resulting successfully in Colorado, Missouri, New Mexico, Tennessee, Texas and West Virginia. The number of states allowing non-graduates to secure license has, therefore, been reduced to 5, these being Alabama, Arkansas, Massachusetts, Mississippi and Rhode Island. A report received is most favorable that the amendment will be secured in Alabama.

Delaware secured an amendment requiring that applicants must have had four years of study in a recognized medical school, leaving only one state, Georgia, which only provides for a three-year course. Two states, Illinois and Minnesota, have raised the standard of preliminary education above that of a four-year high school education. After Jan. 1, 1910, Illinois will require that all students matriculating in medicine must have had one year of nine months to be devoted to the study of physics, chemistry, biology and one language. Minnesota has secured an amendment to their law requiring hereafter that all matriculants in medicine must have at least two years of work in a college of liberal arts. One other state, Connecticut, is trying to obtain requirements in addition to the four-year high school education. Similar action on the part of other state boards will hasten the time when the standards of medical education in this country will be as high as those of other leading nations. The requirement of an additional year of preliminary education by state examining boards will be an added encouragement to the 45 colleges which of their own volition have adopted this standard.

Greatly improved medical practice acts or important amendments have been secured recently in California, Delaware, Minnesota, Missouri, New Mexico, Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin, and possibly in other states which have not been reported to us. Reports show that new practice acts or amendments are being urged in Alabama, Colorado, Connecticut, Michigan, Ohio, Pennsylvania and New York, with promise of success in the majority of cases. Important board rulings have been voted by a number of state boards, at least in Colorado, Oregon, Hawaii, Illinois, Michigan, Minnesota and New Hampshire. Probably no time has ever witnessed so widespread an effort for better laws. The tendency is rapid toward more uniform and higher standards.

BOOK OF LAWS.

The changes in medical practice acts will be carefully followed up and published in the Book of Laws, a new edition of which is issued about every four months. Registration requirements in foreign lands, as well as standards of medical education, are also being given in this book so far as they can be ob-

tained. Reports for all changes of the past few months have probably not been received, therefore, we particularly request of the examining boards that notice be sent us of any changes or additions to the laws as presented in this book.

RECIPROCITY.

At the last session of the American Medical Association in Boston the work formerly devolving on the Committee on Reciprocity was turned over to the Council on Medical Education. Since the extension of reciprocity depends so much on the securing of equally high standards of medical education and licensure, the Council has bent its energies chiefly to obtain such standards, merely watching and noting the progress of the reciprocity movement. In practically all of the new practice acts secured during the past year and in a number of amendments reciprocity has been provided for. On the whole, the justice of reciprocity is being recognized and the movement favoring it is spreading. Statements showing any licenses issued under the reciprocity clause have been received from 21 different states. No statement has been obtained from New Jersey. The list of states and number so licensed in each is as follows:

Delaware	5	Nebraska	56
District of Columbia	11	New York	11
Georgia	6	North Dakota	21
Illinois	43	Ohio	6
Indiana	21	South Carolina	4
Iowa	63	South Dakota	29
Kansas	56	Texas	8
Kentucky	2	Vermont	4
Maryland	9	Virginia	10
Michigan	61	Wisconsin	61
Minnesota	42		

Or a total of 529. A table which shows at a glance just what states reciprocate and on what basis is published regularly in the Book of Laws and revised with each edition of that book. (See Laws, pages 115-116 and table.)

WORK OF STATE COMMITTEES.

State committees on medical education have now been appointed in 45 states, or in all states except Alabama, Arkansas, Nevada, South Carolina, Tennessee and Georgia. These committees have done good work in several instances, having studied local conditions extensively and made splendid reports to their state associations. Particularly was this true in Illinois, Louisiana, Maryland, Minnesota, Missouri, New York, Texas, Virginia and West Virginia. Doubtless other committees have been active also, but have not reported to us.

Through these committees it is hoped that each state medical society will be kept fully informed as to how the standards in their own state compare with the standards throughout the country. These committees can do much to help secure the adoption of the American Medical Association standards in all states by securing for the state examining boards the solid backing of the state medical societies.

In conclusion, the work of the Council for the past year may be briefly outlined as follows:

(a) Collecting, tabulating and publishing the results of state board examinations showing the successes and failures of the graduates of the various medical colleges.

(b) Securing, tabulating and publishing statistics regarding medical students and medical graduates in the United States.

(c) Compiling and publishing abstracts of laws and board rulings governing medical licensure in the United States.

(d) Cooperation with state examining boards, state committees on medical education and with medical colleges in an effort to secure the adoption of the standard of medical education adopted by the American Medical Association.

(e) Collecting of more accurate information regarding medical colleges and their surroundings, particularly concerning the seat, history, buildings, hospitals, laboratories, dispensaries, equipment, college year, etc. This was obtained by securing reports as well as by a systematic inspection of the colleges.

(f) Keeping informed regarding proposed changes in medical practice acts and rendering any assistance possible for the obtaining of advance legislation.

(g) Keeping informed regarding reciprocity and securing from the examining boards reports of licenses issued on that basis.

(h) Collecting from all available sources information bearing on medical education and furnishing it wherever it might be of service. Much has been published in the department of THE JOURNAL, entitled Medical Education and State Boards of Registration.

N. P. COLWELL, *Secretary.*

(To be continued.)

AMERICAN GYNECOLOGICAL SOCIETY.

Thirty-second Annual Meeting, held at Washington, D. C., May 7-9, 1907.

The President, DR. CLEMENT CLEVELAND, New York, in the Chair.

Officers Elected.

The following officers were elected to serve during the ensuing year: President, Dr. J. Montgomery Baldy, Philadelphia; vice-presidents, Drs. I. S. Stone, Washington, D. C., and Malcolm McLean, New York; treasurer, Dr. Charles P. Noble, Philadelphia; secretary, Dr. J. Riddle Goffe, New York (re-elected).

The next meeting will be held in Philadelphia on the fourth Tuesday in May, 1908.

Metastatic Carcinoma of Tube and Ovary in Cancer of Cervix Uteri.

DR. FRED. J. TAUSSIG, St. Louis, said that mild, chronic, inflammatory conditions of the tube and ovary are frequently met in cancer of the cervix. Whether this is merely a coincidence or not, he is unwilling to say. On the other hand, cancerous metastases in these organs are extremely rare in cervical cancer. In fact, he can find no record of such metastasis in an operable case. In carcinoma of the body of the uterus, however, they are not infrequently seen in tube or ovary, or both. Hence it seems logical to advise the removal of both tubes and ovaries in every case of cancer of the body. If, however, the patient is still five or ten years from the time of the menopause, and the site of the tumor be in the cervix, the saving of one ovary is attended with practically no risk to the patient and may relieve her of the disagreeable symptoms of the premature menopause. Since this can be done without interfering with the complete removal of the lymphatics directly tributary to the cervix, he believes it logical to leave one ovary, or a portion of one ovary, in every operation for cervical cancer in a woman under 40 years of age.

DISCUSSION.

DR. J. WESLEY BOVÉE, Washington, D. C., said metastases in cancer of the uterus are by no means common, and that, as the disease spreads, metastases occur. This emphasizes the fact that in the case brought to the attention of the gynecologist he is helpless in the treatment of cancer of the uterus; that in the cases in which the conditions ordinarily offer great hope of success, we will find that metastases occur in these structures which are not removed, the result being that cancer recurs or continues unsuspected. At best, the treatment of cancer of the uterus is not hopeful, notwithstanding the claims of radiographers and the demonstrators of radium, etc., and those who do the most radical surgical operations. He is not prepared in the present light of the surgery of cancer of the uterus to accept the suggestion of the essayist, that it is safe to leave a portion or even one ovary in extirpating a cancer of the uterus. His own conviction is that the operation should be as radical as it can be consistent with saving the life of the patient.

DR. LAPTHORN SMITH, Montreal, reported a case of cancer of the cervix in which operation was done early by another surgeon, with every possibility of a complete recovery of the patient, yet this woman came to him a year later with two distinct masses in the ovaries which could be felt readily. He considered it too late to operate. This case made such an impression on him that ever since, when doing vaginal hyster-

ectomy, he always removes the tubes and ovaries. He does not think it safe to leave an ovary or a piece of an ovary, when there is such a tremendous risk of recurrence.

DR. REUBEN PETERSON, Ann Arbor, Mich., agreed with Dr. Bovée against leaving one ovary or a part of one ovary in the operation for cancer of the uterus. This is a step backward, and is not in accordance with progress that has been made in the last ten years in the treatment of cancer of the uterus. He is not convinced that the leaving in of one ovary, after the removal of the uterus, helps the patient so far as the menopausal changes are concerned. He has been unable to see much, if any, difference where an ovary has been left in, and where it has been removed, after the removal of the uterus for cancer.

DR. WALTER M. CHIPMAN, Montreal, doubts whether it is a wise thing to leave even one ovary, or even a part of one, after the removal of the uterus for cancer, no matter where the cancer is situated. While it is true that the ovary is not in the direct path of the lymphatic distribution of the pelvis, yet so great and so rich is the anastomosis that he thinks the leaving in of ovaries must always be risky.

DR. TAUSSIG said he anticipated that most of the speakers would disagree with him as to the advisability of leaving a portion of an ovary in the class of cases he discussed, but he believes that this procedure is not at all unsafe, and it seems to him that it is just as logical to advise the removal of the appendix as it is to advise the removal of the other ovary. The appendix is a useless organ; the ovary—at least, in the opinion of some—helps to make the menopausal disturbances less severe in women under 40 years of age, if left.

(To be continued.)

THE MEDICAL JURISPRUDENCE SOCIETY OF PHILADELPHIA.

Meeting held April 12, 1907.

The President, ADOLPH EICHOLTZ, ESQ., in the Chair.

The Pathogeny of Crime.

DR. ARNOLD LORAND, Carlsbad, in his recent lecture before this society, took high ground and made a number of statements likely to provoke deep interest in all circles where it is common to face truth and find remedy for evil rather than shirk the real and weakly accept the coward dictum that whatever is, is right. Broadly speaking, Dr. Lorand held that the two barriers protecting the individual against crime or a criminal career are in active and free will power guided by a sound reasoning power. To see right and to be able to do it; to recognize wrong and have power to refrain from its practice here, is the heart of his pathogeny of crime. And this position he justifies in the following way: When a man has free will power he is able to control his passions; when possessed of sound reason he can distinguish between right and wrong.

The operation of the thyroid gland plays an important part in the pathogeny of crime. When the thyroid is removed there is a resulting effect on the nervous system. Mentality undergoes a change. In myxedema there is found melancholia. In myxedema there is not free will power and the reason is not perfect. Moreover, these persons have delusions of persecution. Insanity and criminality stand in close relation, the difference being only one of degree. In exophthalmic goiter where a condition of exaltation bordering on insanity is found, there are often symptoms of hysteria and neurasthenia. Hysteria stands in close relation to criminality. Chloroform also excites the function of the thyroid gland. Alcohol, too, acts on the thyroid gland, producing increased activity with a condition like drunkenness. Further, he said that infectious diseases bring about an alteration of the thyroid gland, and through such alteration a condition parallel to that underlying insanity and criminal acts may occur. Reference was made to the well-known fact that the sexual glands and the thyroid gland stand in close relation. Each time the sexual glands are altered the thyroid gland is also altered. In puberty this is evidenced by the swelling of the thyroid gland, with consequent alterations of mentality. This has been illustrated by the wandering away from home of young girls. Then, too, alterations in mentality are noted during pregnancy, bringing to pass a weakening of the will and a diminution of the reasoning power. Here it was noted that injection of the extract of the ovaries or testicles acts as a toxic product; further, that castration in man produces melancholia, that after castration in women nervous symptoms invariably take place. This was considered important to bear in mind because in deciding whether a woman has committed criminal action the question must always be considered whether she has been in physiologic or a pathologic condition. Reference was made to a case of kleptomania in a woman who was naturally honest, but every time she was pregnant she would steal. Dr. Lorand said that he would not put such a woman in jail.

After every hyperactivity of the sexual glands there is exhaustion. In the interest of the procreation of the race virtue is a necessity in woman. Hysteria was said to be a condition found in connection with alteration of the sexual glands. In man the testicle plays as great a rôle as the ovaries in woman. This is shown in the mentality of the eunuchs. No eunuch was ever a great man. In old age are seen senility and avarice.

Most courts in Europe, it was said, accept responsibility before the law only when puberty is established. The conception of right and wrong is not the same in a person of 16 or 18, because the testicles are not descended. Dementia præcox is a condition in which crime can be committed easily.

Attention was called to the fact that there is such a thing as exposure to crime by imitation. Experiments show that monkeys, apes and men imitate because they do not know by reasoning whether an act is right or wrong. The suggestion is made that one barrier against crime is to prevent the children from attending cinematograph shows, for it is a well-known circumstance that children born of parents who are hysterical or neurasthenic when they see criminal acts are inclined to commit them. Of 173 persons in France who had been beheaded, only 2 had not seen an execution.

There is no doubt of the importance of the part played by the ductless glands in insanity, and, coincidently, in crime. Therefore, alterations of the ductless glands should be inhibited. If the thyroid glands of the parents are altered, the thyroid glands of their children will be altered, too; that is, be differentiated from the normal. It should not be forgotten that in alcoholism there is degeneration of the thyroid gland; also in syphilis and other infectious diseases, and that the children of such persons must reap the harvest, either in the form of thyroid degeneration or congenital atrophy of the thyroid gland.

Another fact of the first importance is that crime is most common among children of alcoholic and syphilitic persons because these children are born in a condition of congenital myxedema and are lacking reason and will power. Dr. Lorand thought that all would agree to the proposition that it is best for the state to take children of criminals away from home and put them into schools where they will be educated at the expense of the government. This would be true economy, for it will cost far more to allow such children to grow up criminals and for years to occupy our jails. While education is a preventive of crime, hand in hand with education must go a realization of the necessity of aid from religion and from reason. Religion is, and must be, the basis of every government and every state. Without religion a country can not stand; a criminal court is not sufficient; it is only a restorative or corrective, it is never a creative force. Education is a necessity because the educated man will reason himself into a belief in the wisdom of obedience. Obedience will teach exercise of will power.

Criminality appears to be larger in the United States than anywhere abroad because lack of self- control is a national characteristic, and there are here few aids to self-control, few public lessons in the habit of obedience. Lacking enforced military service the young men do not have the training and discipline enjoyed by the men of Europe. The young man is not taught to subject his own will to the will of others. Sons

of the wealthy class are chronic idlers; they run naturally to sexual excess; there follow, inevitably, alterations of mentality.

As to the mental condition "dementia Americana," Dr. Lorand does not admit its existence. The condition suggested he would term "dementia plutocratica." This condition, however, he declares, is not essentially American. It is only more common in America because America is richer than other nations.

In his opinion, specialists in neurology should be constantly in the service of the government. In difficult cases there should be a third man. It should be remembered that the highest wisdom suggests that in the treatment of criminals the questions be asked, Is punishment the real treatment of disease? What are the purposes of punishment? The first purpose is the protection of society. All are agreed that vengeance should not be the sole guide. Dr. Lorand suggested to put criminals in a colony where they can be taught to raise cattle, chickens, flowers and vegetables. This would be a wiser policy, and would better safeguard the state than to imprison them; for when such a term of detention has expired the men come out with no taint on them, and they can be made useful members of society.

To sum up the situation, excess or deficit in working power of the thyroid gland or other ductless glands may develop into an abnormal condition which makes inevitably toward insanity; insanity makes, by normal progress, through advancing forms of the imagination coincident with a weakening of the will, toward crime; crime makes for the destruction of the state and the end of civilization. It would thus appear that the safety of society rests on the maintenance of normal conditions in this gland which is so potent in its influence on the moral as well as the physical life of the individual. In short, crime has a basis in a physical fault; the correction of crime is to be sought in the correction of this physical fault rather than in venegeful or isolating forms of punishment inflicted by a hard and fast rule on the individual criminal. Sanity and virtue are synonymous terms—insanity and crime interchangeable synonyms.

DR. CHARLES DEM. SAJOUS agreed with the views of Dr. Lorand, believing that in his presentation of the subject there are the fundamental principles of a proper, fair and just interpretation of many conditions confronting the courts. He feels that the ends of justice would be served if many of those tried by courts of justice were examined physically and treated according to the findings.

DR. F. X. DERCUM agreed with the general trend of Dr. Lorand's address. He feels that the present attitude toward crime is the same as that toward the insane something over a hundred years ago. If the laws could accept the idea of lessened responsibility and deal with crime in accordance with that, he sees that a great step in advance would be made. He agrees with Dr. Lorand that crime should be dealt with from the standpoint of treating the criminal, and that little or nothing can be accomplished by confining him for a given number of months without occupation. He should be put under conditions in keeping with simple physiologic living. Segregation should not be for months or years, but should be dependent on the change in condition. This he regards as the humane view, and expresses the opinion that there will be a change in the oversight of the criminal quite as radical as that seen in the care of the insane.

DR. ALFRED GORDON felt that Dr. Lorand's ideas were based on scientific principles and deep scientific knowledge. He agreed with Dr. Lorand in the majority of his propositions. In the matter of medicolegal testimony, his ideas are absolutely identical with those of Dr. Lorand. A case was cited in which in giving expert testimony he had not been allowed to enter into the details which, in his opinion, lessened the man's responsibility. He believes that if a man is considered an expert, he should be allowed to submit to the judge and jury details of family history and matters of medical knowledge. He believes that the end of justice should be not alone to prosecute the criminal, but to study him for the purpose of preventing crime.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Semi-Centennial Celebration of Its Founding, held May 9-11, 1907.

The President, DR. W. M. L. COPLIN, in the Chair.

The Pathological Society of Philadelphia commemorated the fiftieth anniversary of its founding May 10 and 11, 1907. Exhibition meetings began Thursday evening, May 9, and were continued until Saturday, May 11. The formal exercises were opened by the president, Dr. W. M. L. Coplin of Jefferson Medical College, in the Mütter Museum, College of Physicians, at 10 a. m., May 10, when the society went into scientific session.

The Rôle of Protozoa in Pathology.

DR. FREDERICK G. NOVY, Ann Arbor, Mich., gave a history of the advances made in the study of protozoal diseases and called attention to the difficulties in determining their etiologic factors. The etiologic relationship of amebas to disease is well established, and Novy stated that their division into a pathogenic and non-pathogenic group is unwise, especially in the tropics, where the only safe hypothesis to adopt is that all amebas are or may become pathogenic. Trypanosomal infections, he pointed out, are to be met perhaps in all parts of the world, and they have been found in so many forms of animal life that it seems as if no type of vertebrate is exempt. The experiments in regard to the relative behavior of trypanosomes and of spirochetes to a given anilin dye can not, in Novy's opinion, be accepted unreservedly as a means of differentiating species. The discovery of a trypanosome in patients ill with sleeping sickness he holds to be most important and the experiments being carried on in Central Africa by Koch on the treatment of injections of anilin compounds is to be awaited with interest. Spirochetes, the speaker believes, belong in a group by the side of bacteria, and more especially the spirilla, stating that it is impossible to trace a sharp dividing line between the protophytes and protozoas, and that one must be guided by the different relationship to recognized types. In the supposed protozoal diseases, namely—cancer, smallpox, scarlet fever, measles, yellow fever, rabies and Rocky Mountain fever, Novy urges more exhaustive work along physiologic, chemical and biologic lines, unless the crucial test, that of artificial cultivation, is first realized, since morphology alone seems powerless to overcome the *impasse* in which seemingly we find ourselves to-day. The mode of transmission of this group of diseases is for the most part by insects, though in some of the lower animals infection has taken place through an apparently uninjured mucous membrane. Novy believes that the insects are not only passive but active carriers of both bacteria and the protozoa, and hence the transmission of certain spirochetal diseases by ticks does not afford a serious argument against the bacterial nature of the spirochetes, and the similar rôle of stegomyia in the transmission of yellow fever does not necessarily imply protozoal organisms. He considers the evidence as being suggestive of a spirochete cause.

The Dynamic Point of View in Pathology.

DR. A. E. TAYLOR, San Francisco, made a plea for a more rational and scientific viewpoint of pathology. He considered pathology under three headings: Etiology, of predominant importance from the point of view of preventive medicine and a subject to which too great importance can not be attached in teaching and investigation; morbid physiology, the doctrine of the *modus operandi* of disease; and morbid anatomy, the doctrine of histologic lesions. He pointed out that the last subject has until recently greatly overshadowed the first and continues to overshadow the second, particularly in the teaching of pathology and thus secondarily in the minds of the profession. He considers this disproportionate predominance accorded to the visible lesions of disease out of all proper perspection and proportion and constitutes a bar to the development of the point of view of morbid physiology in clinical medicine. This position he attributes to the fact that physiology was for a long time largely a descriptive science mainly because the majority of physiologists were offshoots from anatomy. At the present time too much emphasis can not be laid on the importance of the advances made in physiologic

chemistry to influence pathology in the direction of the dynamic point of view. In regard to practical medicine, he very aptly pointed out the importance of the dynamic point of view in research in pathology by calling attention to our knowledge of two diseases, nephritis and diabetes. He showed how in nephritis the localization of the lesion has been known from the beginning, while for diabetes none has until recent times been known; yet, we to-day know much more about the actual morbid functionation in diabetes than we do in nephritis.

The Newer Pathology.

DR. SIMON FLEXNER, of Rockefeller Institute, New York, believes that while a study of the anatomical changes introduced in cells by disease has not been exhausted and each year adds valuable stores to our knowledge of the pathologic changes underlying diseased processes, yet the most significant advances are being made by the study of the nature and mode of action of the causes of disease, and that, therefore, the hope for the immediate future lies in the further study by every means that physiologic and biologic science can supply of the infective diseases. The problems confronting the newer pathology, according to the speaker, are to determine the mode of onset, the prevention and the cure of disease. To study prevention the method of infection must first be determined. In the advances made so far, we have learned that not only is the transmission from man to man, but that the man's animal associates and enemies must be carefully scrutinized. The problem of the causation of some of the infectious diseases, namely, smallpox, yellow fever, scarlet fever and measles, Flexner stated, must not be approached from the standpoint that the infective germs of these diseases are ultra-microscopic in size. The cause of disease discovered, the task of pathology, according to Flexner, is merely begun. To possess the cause is merely to be confronted with the problem of the immediate manner in which it acts on the seats of disease to produce the changes which we recognize as being pathologic. The speaker referred to the studies on immunity to bacterial infection, as removing a large part of the mystery of the so-called self-limiting diseases. The present problem is to work out the phagocytic doctrine of Metchnikoff, the humeral doctrine of Ehrlich and the theories of active immunity reaction in the fixed cells of the body. The most difficult problem is to determine the nature of bacterial immunity with the same success that has attended the work in the production of diphtheria antitoxin. The junction of pathology with experimental therapeutics, Flexner believes, opens up a field for interesting and profitable research for specific chemical studies. The recent study of the origin of tumors and the application of the principles gained in the study of infection and immunity in bacterial disease to the study of transplantable tumors in mice opens up wide vistas for future research, and Flexner emphasized that because of this no one is justified on account of the similarity in the phenomena to believe that tumors are of necessity caused by parasites, but rather it discloses the fact that infection and immunity to unicellular organisms are merely special cases of biologic reactions applicable to a wider and more complex series of living structures of which special instances have been found in relation to hemolysins, cytotoxins, precipitins, agglutinins, etc.

Luncheon.

The morning session was concluded with this paper, after which the members entertained their guests at an informal luncheon at the University Club, at which 250 were present.

Pathology and Practice.

At 4 p. m. in the assembly hall of the Pennsylvania Hospital, in which historic building the first meetings of the society were held, Prof. William Osler, University of Oxford, England, was introduced by Dr. Alfred Stengel, University of Pennsylvania, and delivered an address. He advocated the removal of public health matters from the hands of politicians and the teaching and training of men specially in matters affecting the physical well-being of the entire community. He further pointed out that the standard of medical education must be raised. He regretted the possibility for men to graduate in this country without autopsy or hospital experience, and advocated reforms in this direction. Here are a few epigrams from Dr. Osler's lecture:

With only a few drugs man can practice medicine very well.
In the past fifty years our ideas have changed and we have reached a rational standpoint.
We are the teachers and not the slaves of our patients.
We work by wit and not by witchcraft.
Don't make promises to heal when it is impossible to heal.
The highest aim is not to cure, but to prevent disease.
He cures most in whom most have the greatest confidence.
Give up lecturing medical students to death and make them do practical work.
No one professor in medicine can teach all there is or know about everything.

The banquet in the evening is mentioned under Philadelphia news this week, page 1687.

AMERICAN CONFEDERATION OF RECIPROCATING, EXAMINING AND LICENSING MEDICAL BOARDS.

Annual Meeting, held at Chicago, April 30, 1907.

The President, DR. W. A. SPURGEON, in the Chair; DR. B. D. HARISON, Secretary.

The following state medical boards were represented: Indiana, W. A. Spurgeon, W. T. Gott; Michigan, B. D. Harison; Ohio, H. E. Beebe, A. Ravogli; Minnesota, W. S. Fullerton; Nebraska, B. F. Bailey; New York, C. E. Gorman; Massachusetts, E. B. Harvey; Kentucky, C. A. Mayer; Wisconsin, J. F. Stevens, P. H. McGovern; Utah, R. J. Richards; Colorado, S. D. Van Meter; West Virginia, J. L. Dickey; North Dakota, F. R. Smith; Idaho, W. F. Howard; Missouri, R. H. Goodier; Vermont, W. Scott Nay.

Others present were: A. D. Price, Vanderbilt University, Tenn.; S. C. Baldwin, State Medical Society, Utah; J. A. Witherspoon, Tennessee, Council on Medical Education, A. M. A.; S. L. Jepson, State Medical Society, W. Va.; V. C. Vaughan, Michigan, Council on Medical Education, A. M. A.; F. C. Zapffe, Illinois, secretary Association American Medical Colleges; W. J. Means, Ohio, chairman Judicial Council, Association American Medical Colleges; W. B. Hinsdale, Michigan, dean Homeopathic Medical College, U. of M.; H. N. Ludwick, Illinois, ex-secretary Wisconsin medical board; W. T. Councilman, Massachusetts, Council on Medical Education, A. M. A.; A. D. Bevan, Illinois, chairman Council on Medical Education, A. M. A.; N. P. Colwell, Illinois, secretary Council on Medical Education, A. M. A.; L. C. Morris, Georgia, Southern Medical College Association; A. B. Bailey and A. P. Andrus, Wisconsin.

The minutes of the Columbus (Ohio) meeting, April 25, 1906, were read and adopted.

Secretary's Report.

This report stated that there had been a conservative progress of the reciprocity movement during the past year, and that this movement had assumed a well-defined educational system, as well as a necessary policy of convenience in medical licensure. It called attention to the difficulty encountered from the fact that the term "medical reciprocity" was subject to an almost universal misinterpretation of its scope and intent. Medical reciprocity (a) does not mean a leveling of the products of medical registration of two or more states followed by unrestricted endorsement of medical licenses of such states, (b) but the accepting of present and future conditions of standard of two or more states and endorsement on mutually accepted products of a certain and known standard.

The only material thing accepted through Qualification 1 is the credit of the board examination and the recommendation of the reciprocating state covering moral and professional character. Under Qualification 1 the former prevailing idea that reciprocity involved the recognition of licentiates in classes as opposed to individual recognition is fast disappearing. A defective qualification, either involving preliminary or medical education, accepted in one state on account of exemptions in the law, or through error or defective administration, can not, through such state recognition, claim immunity in fulfilling the exact requirement of another state in reciprocity.

Qualification 2, which involves the recognition of the older and experienced graduate, is also fast becoming better under-

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stood. The material qualification involved in this form of reciprocity is contained in the following definite statement: "If the practitioner, at the date of his diploma and state license obtained on the basis of such diploma, could have fulfilled the requirements of the reciprocating state at such an even date and prior to the date of the requirement of the double qualification (diploma and state board examination), and, in addition, can furnish evidence of continued reputable and successful practice, then his qualifications may be endorsed." The fact that out of some 600 licenses reported endorsed during 1906 only 60 of these are under qualification 2 demonstrates that the danger attributed to this form of reciprocity is greatly exaggerated.

Since the 1906 meeting the regular board of Georgia and the West Virginia board have been admitted to the confederation, and several other boards have put into effect reciprocity agreements with other states, and other boards have, where possible, extended their reciprocity agreements to both qualifications.

Thirty-one states now endorse licenses through reciprocity, 13 under Qualification 1 only, and 18 under both qualifications, and several states are obtaining the necessary legislation covering the future endorsement of licenses under both qualifications.

The report suggested the issuing of a pamphlet similar to the one issued by the American Medical Association under the title of "Abstract of Laws." The report also called attention to the want of uniformity in application forms used by the several states and suggested the continuance of the committee on forms, having in view the remedying of this defect.

Licenses were endorsed through reciprocity during the year 1906 as follows:

States.	No. I.	No. II.	Total.
Connecticut Eclectic Board	6	..	6
Virginia	19	..	19
South Carolina, Regular	8	..	8
Indiana	12	9	21
Iowa	55	8	63
Delaware	4	..	4
Maryland	Not classified.		26
Ohio	50	6	56
Missouri	32	3	35
Illinois	47	..	47
North Dakota	20	..	20
Wisconsin	16	12	28
Georgia, Homeopathic	1	..	1
Vermont	3	2	5
Minnesota	40	1	41
New York	31	..	31
Kansas	Not classified.		129
Michigan	44	17	62
	388	58	593

Advanced Standing.

Discussion on this subject elicited the fact that a large number of states have the statutory requirement of "four years in a medical college." It was the consensus of opinion, therefore, that the better policy for the confederation would be to take no action whatever relative to the subject of advanced standing, but that the subject should be left to the judgment of the individual board and the limitation of its medical act.

It was, therefore, moved by Harison (Michigan), seconded by Stevens (Wisconsin), that all matter relative to advanced standing adopted at the Columbus meeting, 1906, and at all former meetings, be expurged from the minutes. Carried.

Attention was called by the president to the report of the Council on Medical Education, American Medical Association, relative to the result of an inspection of the medical colleges of the country by the council. The result of this inspection was very highly commended by several members, and far-reaching benefits were anticipated in the cause of higher standards in the future.

Moved by Bailey (Nebraska), seconded by Ravogli (Ohio), that a committee of five be appointed (of which the president and secretary shall be members), whose duty it shall be to secure all data possible concerning the medical colleges of the country and to report at the next meeting of the confederation, with recommendations looking to better control of the colleges by the state in which they are situated. Carried.

The following were appointed members of such committee: Harison (Michigan), Spurgeon (Indiana), Stevens (Wisconsin), Hamel (Missouri), Bailey (Nebraska).

Moved by Mayer (Kentucky), seconded by Stevens (Wisconsin), that the chairman appoint a committee of three to deliberate on and formulate a plan for more uniform legislation in respect to the powers of licensing boards in the revocation of licenses for immoral and unprofessional character. Carried.

The president appointed as members of this committee: Mayer (Kentucky), Dickey (West Virginia), Canfield Indiana).

Preliminary Requirements.

Moved by Bailey (Nebraska), seconded by Gott (Indiana), that no change be made at this time in the standard of preliminary education adopted by the confederation at Columbus, 1906, and that a committee of three be appointed to confer with the secretary of the Association of American Medical Colleges to consider the flexibility of such standard and to report at the next meeting of the confederation. Carried.

The president appointed as members of such committee: Harison (Michigan), Gott (Indiana), Matson (Ohio).

Uniformity of Forms.

The committee on uniformity of forms, of which Dr. Stevens of Wisconsin is chairman, was continued.

Officers Elected.

Dr. W. A. Spurgeon, Muncie, Ind., a member of the Indiana State Board of Examiners, was re-elected president, and Dr. B. D. Harison, Detroit, secretary of the Michigan State Board of Registration in Medicine, was re-elected secretary.

The president, Dr. Spurgeon, stated that he wished to have recorded in the minutes a statement of appreciation of the very valuable assistance and advice the confederation had received from the Association of American Medical Colleges and from the Council on Medical Education of the American Medical Association, and he trusted that the confederation's relations with these bodies in an advisory capacity would continue in the future, as it meant much in the cause of uniformity of standards in preliminary and medical education. Several other members, representing state medical boards, re-echoed this statement of the president.

ASSOCIATION OF AMERICAN PHYSICIANS.

Twenty-second Annual Session, held at Washington, D. C. May 7-9, 1907.

The President, DR. FRANCIS P. KINNICUTT, in the Chair.

The Need of Perfected Organization.

DR. FRANCIS P. KINNICUTT, New York, in the president's address, chronicled the death of three members during the past year, active members Drs. Stewart of Montreal and Atkinson of Baltimore, and honorary member Dr. Latimer of Baltimore. He spoke of the discoveries of Wright and Douglass regarding the opsonic power of the blood and the need for testing the practical availability of the procedure. The physician of the past and too largely of the present has been the individual, and the profession has taken no commanding position in municipal and state affairs. In those affairs they are now needed.

Connections of Occipital Lobes and Present Status of Cerebral Visual Functions.

DR. ADOLF MEYER, New York, gave a lantern-slide demonstration of specimens from cases showing that the optic radiations can be much further subdivided than has been done. Among the points illustrated were the isolation of the geniculocalcarine tract, the afferent character of the external sagittal marrow, the efferent character of the internal sagittal marrow, subcortical fibers toward the motor area, and the absence of fibers to the frontal lobe.

DISCUSSION.

DR. L. F. BARKER, Baltimore, regarded Dr. Meyer's studies as definitely proving many of the points discussed and hence of

especial value. The subject is of great importance in diagnosis and the anatomy of these parts should be further elucidated.

Certain Features of the Nervous Breakdown.

DR. JAMES J. PUTNAM, Boston, regards as the most striking example of this acute breakdown the so-called traumatic neurosis, though strains during school and college life and intercurrent events during chronic illnesses are also effective in its production. The controlling influence in the causation of these states, and also the controlling means of treatment, is the mental state of the patient. The methods of treatment must be based largely on re-education of the patient, specially the increase of his available stock of mental energy. The objects to be aimed at are two: First, to make the person more efficient; second, to make him more philosophic and ethical. In general it may be said there is no single clue to all methods of treatment.

DISCUSSION.

DR. ADOLF MEYER, New York, believes there is a possibility of misconception if the physician is asked to teach philosophy and ethics. This is a most important point, however, and both these will find a foundation as has psychology. The ethics of habits and reaction types will become of prime significance.

DR. CHARLES L. DANA, New York, regards a large number of these cases not a nervous breakdown, but a psychosis. Some patients get over the condition in a short time, but with many it lasts.

DR. ABRAHAM JACOBI, New York, has in such cases almost always found changes in the heart, in some the presence of murmurs. Hence one must remember there is a physical change, as well as the psychic, to be treated.

DR. S. WEIR MITCHELL, Philadelphia, said these cases are sometimes emotional conditions, sometimes physical breakdown. It is often a complicated condition that works out in the sick room into its component parts. Cases that begin acutely are extremely rare.

DR. PUTNAM said that we rarely see acute cases except those due to trauma. Here strong encouragement is often effective. The condition is not a pure psychosis, hence the visceral and other tissue changes must be observed and treated.

Clinical Study of Aphasia.

DR. CHARLES L. DANA, New York, studied some 30 cases of aphasia. Nearly all cases fall into one of four groups. First, pure motor aphasia; second, inability to read; third, sensory aphasia of Wernicke; fourth, mixed cases, in which speech, reading, writing, comprehension, in fact, almost everything, is lost. Students learn to say where the lesion is when the symptoms of these groups are presented. Apraxia occurs only with bilateral lesions, as a rule.

DISCUSSION.

DR. WILLIAM THOMSON, New York, can work out 27 types of aphasia instead of 24, as mentioned by Dr. Dana. He detailed three cases, all absolutely devoid of motor symptoms.

DRS. STARR, PUTNAM, PRINCE and DANA all stated their conviction that the contention of Marie that the speech center is not in the convolution of Broca is not proven.

Inflammatory Masses in the Abdomen Simulating Malignant Growths.

DR. E. G. JANEWAY, New York, described several cases in which firm masses in the abdomen, with or without exploratory operation, were pronounced inoperable tumors, but which later disappeared entirely. Some of these were in the iliac fossæ, two in connection with gastric ulcer, and two in the region of the gall bladder. These cases teach the clinician not to be too hasty in giving a bad diagnosis and prognosis. He has no doubt that the so-called removal of some tumors by the Roentgen ray and other methods has been due more to the "tincture of time" than to the agent employed. They also teach that operation does not always absolutely settle the diagnosis.

DISCUSSION.

DR. WILLIAM OSLER, Oxford, Eng., said that often physicians have been deceived by these cases. They may be grouped in three classes, as they pertain to the region of the gall bladder, the stomach or the appendix and cecum. His attention has lately been directed to a group of cases in which a mass is felt in the sigmoid region. This may be due to thickened glandulæ epiploica, which will deceive the elect, or to perforation of a foreign body or pericolic inflammation. He agrees as to the fallibility of surgical operation, but always urges early interference. Some operations are disappointing, but many are satisfactory.

DR. A. MCPHEDRAN, Montreal, spoke in this connection of tuberculous peritonitis. He believes that more cases of this disease recover without than with operation. He also mentioned a case of supposed malignant tumor of the pyloric end of the stomach, for which gastroenterostomy was performed and which entirely disappeared.

Etiology of Acute Pancreatitis.

DRS. H. U. WILLIAMS and F. C. BUSCH, Buffalo, analyzed cases from the literature and reported experimental observations. In cases where gallstones are absent they suggest that the previous passage of gallstones may have dilated the ampulla of Vater and thus allowed intestinal contents to pass into the pancreas. Experiments on cadavers suggested the possibility of this occurring. In some animals they caused pancreatitis by injecting into the pancreas duodenal contents. They also pushed through the duct bodies similar to gallstones and then tried by pressure to force duodenal contents into the pancreas. In some instances they succeeded in thus causing pancreatic lesions. In consideration of physiologic facts it appears that autodigestion of the pancreas indicates the entrance into the organ of enterokinase, but the introduction of that substance into the pancreas did not produce pancreatitis.

DISCUSSION.

DR. EUGENE L. OPIE, New York, said it is not improbable that the mechanism mentioned by the writers does occur and that pancreatitis is due to the entrance of duodenal contents. However, the cases in which he has seen large stones in the ampulla of Vater have been those of chronic rather than acute pancreatitis, it appearing that bacteria instead of duodenal contents entered. Bile and bile salts appear specially efficacious in producing pancreatitis.

The Calcium, Magnesium, Phosphorus and Nitrogen Balances in a Case of So-called Phosphatic Diabetes.

DRS. L. F. BARKER and C. VOEGTLIN, Baltimore, reported this case, the patient being a woman of 39, who for years suffered from dry skin, cracking of the heels, nervousness and periodic losses in weight. The urine was constantly of high specific gravity and high acidity. She was put on Folin standard diet and the salts measured. The results showed an abnormal metabolism. The calcium was at first high, more than double the normal. The phosphates were increased, but became about normal on diet. The total acidity of the urine was striking, running at times to 1,500 c.c., five times the normal, and averaging 700 c.c. on Folin diet. The relation of this form of acidosis to other forms due to starvation, diabetes, acute infections, etc., is interesting. There was no acetone or diacetic acid in the urine and the acidity was not due to lactic, hippuric or uric acids. The real cause is not known. Carbohydrate metabolism was normal in this patient, hence it appears different than diabetic acidosis. Whether this condition leads to the exhaustion of calcium and other salts is an interesting question.

DISCUSSION.

DR. WILLIAM OSLER said the chief point of interest in this case is that any one would have pronounced it a case of diabetes until the urine was examined, but repeated tests failed to show the least trace of sugar. When he saw the woman he regarded the case as one of prediabetes and expected each examination of the urine to show that sugar had appeared.

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DR. A. E. TAYLOR, San Francisco, said he tested on himself the effect of an ash-free, alkali-free diet and felt nothing but lassitude for six days, when itching of the skin and general irritability began. Sleep became impossible and diacetic acid appeared. This was regarded as a danger signal and ordinary diet was resumed with disappearance of symptoms in a few hours. Here the equilibrium was disrupted, though there was no particular withdrawal of calcium.

DR. BARKER said that salts are just as important in diet as are fats and carbohydrates. There must be equilibrium or the muscles, including the heart, and nerves can not act properly. These results constitute an interesting outlook for the future in determining the origin of disease.

Relations Between Diabetes and Pregnancy.

DR. AUGUSTUS A. ESHNER, Philadelphia, collated the literature on this subject, comprising 34 cases, and reported an unusual instance. A colored woman of 34, who had had sugar in the urine for three years, became pregnant. During pregnancy sugar disappeared, but again appeared shortly after the birth of a macerated fetus at term. He found no similar case in literature. Diabetes is uncommon during pregnancy, and this condition rarely occurs in diabetics. The complication of one with the other usually increases the gravity of both. often the fetus dies *in utero*, or premature labor occurs. The mother sometimes dies of the disease shortly after labor.

DISCUSSION.

DR. JAMES TYSON, Philadelphia, now has under observation a diabetic woman who became pregnant while under treatment for the disease, the urine showing 2 to 5 per cent. of sugar. The symptoms have been in no way aggravated and pregnancy is now near term.

Experimental Fibrinous Pleurisy.

DR. EUGENE L. OPIE, New York, detailed experiments which show that the disappearance of fibrinous exudates in the pleura can be studied under conditions analogous to those which obtain in pleurisy and pneumonia in man. He injects turpentine into the pleural cavities of dogs, producing sero-fibrinous pleurisy. Accumulation of fluid is at the maximum at the end of three days and fluid has entirely disappeared at the end of six days. Resolution of fibrin begins while fluid is present and is completed after the fluid has disappeared. In the first stage the fibrin digests itself in the presence of weak alkali, but later does so only in the presence of weak acid. It is possible that carbon dioxid, acting in the body as an acid, promotes resolution of the exudate by the enzyme. By aspiration of fluid and other means, as by repeated injections of turpentine, the characters of the exudate may be modified, even changed from sero-fibrinous to purulent.

Certain Acoustic Limitations of the Stethoscope and Their Clinical Importance.

DR. LEWIS A. CONNOR, New York, studies confirm that certain sounds can be heard by the unaided ear and not by the stethoscope. In the heart this is specially true of certain murmurs of aortic insufficiency, whizzing in character. In the lung it is true of high pitched bronchial and also of amphoric breathing. Three points were offered in explanation of this fact. First, high pitched sounds are less readily propagated in closed tubes, especially elastic tubes. Second, when the ear is placed on the chest wall sound is transmitted by the bones of the skull as well as by the ear itself. Third, all chest sounds are composite and some bear certain relations to the tube of the stethoscope and are by it increased or diminished. The practical point is that students are wrongly taught to use only the stethoscope; they should be encouraged to use the ear.

DISCUSSION.

DR. S. SOLIS-COHEN, Philadelphia, finds it difficult to make students trained only to the stethoscope hear the sounds he does. Another point is that the stethoscope changes many sounds. The sole advantage of that instrument is in localizing sounds previously discovered by the ear.

DR. E. G. JANEWAY, New York, said that certain pneumonias do not give sounds with the stethoscope. He also encountered one instance of a cavity not possible of demonstration with that instrument, though its presence was conclusive.

DR. ABRAHAM JACOBI, New York, mentioned the difference in area covered by the ear and the stethoscope as one source of difference in their findings.

(To be continued.)

Marriages

SYLVIA F. HARRIS, M.D., and Samuel Hardy of Nevada, Cal., at Berkeley, Cal., May 9.

HENRY L. STEVENS, M.D., to Miss Kittie Kinnear, both of Laramie, Wyo., April 30.

ERA M. SCOFIELD, M.D., to Miss Bessie C. Brown, both of Jamestown, N. Y., April 30.

EDWIN B. DAUGHERTY, M.D., Eveleth, Minn., to Miss May Alness of St. Paul, May 1.

FRANCIS M. WALSH, M.D., to Miss Eleanor Gertrude Murphy, both of Philadelphia, April 27.

CHARLES EDWARD KLONTZ, M.D., to Miss Elizabeth Case, both of Cherry Valley, Ill., May 2.

JOHN R. OSBORN, M.D., Prospect, Ohio, to Miss Hazel Barber of Rushsylvania, Ohio, April 30.

JOHN T. HARBOTTLE, M.D., to Miss Margaret Louise Hayes, both of Columbus, Ohio, April 30.

WALTER W. SMITH, M.D., Reily, Ohio, to Miss Marguerite Kitchell of Kitchell, Ohio, April 30.

JOHN H. SEAMAN, M.D., New Haven, Mich., to Mrs. William P. Sprague, at New Haven, April 2.

E. E. BRUNNER, M.D., Carrollton, Mo., to Miss Mary D. Neal of Southport, Eng., at Centralia, Mo., April 29.

FERDINAND AUSTIN KITTINGER, M.D., Lockport, N. Y., to Miss Adelaide F. King of Buffalo, N. Y., April 30.

CHARLES A. D. CLARK, M.D., Harbor Springs, Mich., to Miss Matilde Beit of Sherman, Mich., at Cadillac, Mich., April 27.

Deaths

John Traston Main, M.D. Castleton (Vt.) Medical College, 1857; a member of the American Medical Association; sometime a member of the House of Representatives and Senate of Maine; for a long time a private pupil and assistant of Dr. Oliver Wendell Holmes; assistant surgeon of the Second Maine Volunteer Infantry in the Civil War; a member and president of the board of health of Jackson, Mich., and medical inspector of the City Hospital, died at his home in Jackson, May 1, after a long illness, aged 75.

Carl L. Rominger, M.D. University of Tübingen, Germany, 1840; a member of the Washtenaw County (Mich.) Medical Society, the American Association for the Advancement of Science, and the American Geographical Society; for many years state geologist of Michigan, and a recognized authority on his specialty, died at his home in Ann Arbor, from senile debility, April 22, after an illness of four months, aged 86.

John Sweetland, M.D. Faculty of Medicine of Queen's University, and Royal College of Physicians and Surgeons, Kingston, Ont., 1858; sheriff of Carleton County, Ont.; formerly coroner for Lanark and Renfrew counties, and surgeon of the County of Carleton General Hospital; president of the Medico-Chirurgical Society; died at his home in Ottawa, Ont., May 5, from disease of the liver, after a long illness, aged 71.

Irvin B. Webber, M.D. Cincinnati College of Medicine and Surgery, 1870; a member of the Indiana State and Kosciusko County medical societies; president of the Northern Indiana Medical Association; United States pension examiner and health officer of Warsaw, died on a street car while returning home from Winona Lake, May 1, aged 61.

William Harrison Jopes, M.D. Missouri Medical College, St. Louis; a member and president of the board of managers of State Hospital No. 3, Nevada, Mo., for about 14 years, died at his home in Greenfield, Mo., April 12, from stricture of the colon, after an illness of three months, aged 72.

James Dudley Pendleton, M.D. University of Virginia, Department of Medicine, Charlottesville, 1860; for 30 years assistant clerk and clerk of the state senate of Virginia, died

suddenly at the home of his daughter in Bedford City, Va., April 10, from cerebral hemorrhage, aged 77.

Marvin Stephen Buttles, M.D. New York University Medical College, 1865; once vice-president and president of the East River Medical Association; from 1864 to 1873 professor of obstetrics in the Medical Department of the University of the City of New York; from 1865 to 1872 surgeon of the Seventy-first Infantry, N. G. S. N. Y.; founder of the Olivet Female Infirmary, and medical officer of the New York fire department, died at his home in New York City, May 9, aged 73.

Arthur Bertin De Villeneuve, M.D. Medical Department of the Tulane University of Louisiana, New Orleans, 1872; well known as a physician, journalist, musician and linguist, died at his home in New Orleans, from heart disease, April 30, after an illness of six days.

Charles Williams Ottley, M.D. Johns Hopkins Medical School, Baltimore, 1899; formerly of Atlanta, Ga.; for several years professor of biology in Robert College, Constantinople, Turkey, died at Johns Hopkins Hospital, May 8, from postoperative pneumonia, aged 36.

William H. Hotchkiss, M.D. Medical Institution of Yale College, New Haven, Conn., 1872; a specialist in diseases of the eye and ear, died at his home in New Haven, May 2, from cerebral hemorrhage, after an illness of a few hours, aged 60.

Fulton Rogers, M.D. Medical Department of the Tulane University of Louisiana, New Orleans, 1867; a member of the American Medical Association, died recently at his home in Napoleonville, La., from chronic interstitial nephritis, aged 60.

George H. Fossard, M.D. Albany (N. Y.) Medical College; assistant surgeon in the Army during the Civil War and chief surgeon of New York Volunteers, died at his home in Brooklyn, N. Y., May 10, aged 68.

James W. Ferguson, M.D. Homeopathic Hospital College, Cleveland, Ohio, 1876; of Haslett, Mich., died May 6, in a hospital in Toledo, Ohio, where he was under treatment for inflammatory rheumatism, aged 58.

James O. H. Banks, M.D. Hahnemann Medical College and Hospital, Philadelphia, 1873; died at his home in Pocopson Township, Pa., April 29, from cancer of the rectum, after an illness of two years, aged 78.

William B. Tackett, M.D. University of Louisville (Ky.) Medical Department, 1849; one of the oldest practitioners of Johnson, I. T., died at his home in that place, May 2, from senile debility, aged 82.

Lester F. Smith, M.D. Illinois Medical College, Chicago, 1906; died at the home of his father in Brazil, Ind., May 1, from uremia following an operation on the prostate gland two weeks before, aged 23.

William Jackson Kendall, M.D. College of Physicians and Surgeons, Baltimore, 1884; died at his home in Paris, Va., February 20, from pneumonia, after an illness of five days, aged 45.

Samuel G. Milner, M.D. Homeopathic College, University of Michigan, Ann Arbor, 1877; of Detroit, died at Grace Hospital, in that city, May 2, a few hours after a surgical operation, aged 61.

Ira Lee Forsee, M.D. Chicago Homeopathic Medical College, 1904; died at his home in Louisville, Ky., May 2, from pneumonia following typhoid fever, after an illness of two months, aged 25.

James Warren Cameron, M.D. Hahnemann Medical College and Hospital, Chicago, 1878; died at his home in Salina, Kan., April 20, from appendicitis, after an illness of one week, aged 60.

James H. Ferrell, M.D. Homeopathic Hospital College, Cleveland, 1885; died at his home in Marion, Ohio, May 3, from uremia, after an illness of two weeks, aged 55.

Frederick Volz, M.D. Jefferson Medical College, Philadelphia, 1892; died suddenly at his home in Bloomington, Ill., March 27, from pulmonary hemorrhage, aged 42.

Anabel Holmes, M.D. Woman's Medical College of Pennsylvania, Philadelphia, 1892; formerly of Chicago, died April 22, at her home in Portland, Ore., aged 43.

James A. Elder, M.D. St. Louis (Mo.) Medical College, 1879; formerly of Saline County, Mo., died at his home in Pasa Robles, Cal., April 14, from paralysis.

Willard W. Wilcox, M.D. Dutton Medical College, Chicago, 1899; of Oklahoma City, Okla., was drowned while bathing at Tampico, Mex., recently, aged 60.

Augustus H. Warren, M.D. New York University, New York City, 1886; formerly of La Grange, Ill., was found dead in Quincy, Ill., April 16, aged 70.

Miscellany

THE INTERNATIONAL MOTHER TONGUE.

A Plea for the Use of Latin Derivatives to Facilitate the Reading of Articles by Foreigners.

E. CUSHING, CHICAGO.

In no other science or profession is there such constant and widespread interchange of ideas as between members of the medical profession in all lands, all working to a common end.

Everything that tends to make international communication easier is a direct boon to science and to the profession. The present agitation in favor of Esperanto shows the craving and blind groping for an international tongue. Those who are promoting Esperanto and Volapük overlook the fact, however, that every one now has at his command at least 5,000 words which are practically the same in English, French and all the Latin tongues and are understood by scientific Germans and others. Every word derived from the Latin is understood at once by any one who has ever studied Latin or is familiar with French, Spanish, Italian or Portuguese, scientific Russian, scientific German, scientific Danish, Swedish, etc. Terms from the Greek are also alike in all languages.

THE JOURNAL has already drawn attention to this fact, and has shown that a sentence can be couched in good English terms which yet will be intelligible to persons of other nations, with, perhaps, the exception of the more common, shorter words, prepositions and conjunctions which can be looked up in the dictionary and easily learned. Writers would aid the progress of science if they would bear this fact in mind, and, at least in the titles of their articles, use such terms as are understood the world around.

If medical writers would take pains to couch the summaries at the end of their articles in this International English, as it might be called, the cause of science would be immeasurably promoted. There is no doubt that anything "the Americans" have to say is listened to abroad with interest and respect—when it is understood. If other nations followed this same plan of using words which are already in international use, the reading of their scientific articles would be much facilitated for us.

All scientific journals and works in Germany have long been published in our ordinary type, and it is used commonly everywhere now, except in far eastern Europe. Consequently, there is no difficulty from this source. A knowledge of the verb "to be" and of the articles "the" and "a" is not indispensable, as the sense is so easily made out without them. "Is" and "are" are omitted as superfluous in some languages, and we know that Latin has no article, having only eight parts of speech.

The summary at the end of Dr. Camp's article on "Paralysis Agitans" in THE JOURNAL for April 13, page 1239, is a model specimen of this International English. There is only one word, "disease," which a foreigner would have to look up in the dictionary, besides an occasional preposition. The prepositions he would soon learn by heart if he could hope for frequent summaries in International English.

We quote the summary referred to in full, to show how beautifully the English language adapts itself to international use. The word "disease"—which is from a Gothic root and has no counterpart in other languages—might have been replaced by "malady," when the whole contents of the summary would have been clear to any scientific foreigner.

1. Paralysis agitans is not a neurosis nor is it senility.
2. The anatomic basis of the symptoms, muscular rigidity and tremor, and the symptoms depending on them, lies in the affection of the muscles.
3. The disease itself is probably a general toxemia, and there is suggestive evidence that it is due to alteration in the secretion of the parathyroid glands.

The conclusions of Camp's article in German, worded with a view to international comprehension, would read as follows:

1. Paralysis agitans ist nicht eine Neurose und ist nicht Senilität.
2. Die anatomische Basis für die Symptome, Muskel-Rigidität und Tremor, mit den davonabhaengigen Symptomen, liegt in der Muskel-Affection.
3. Die Paralysis agitans selbst ist, wahrscheinlich, eine generelle Toxaemie die aus alterierter Sekretion der Parathyroiden hervorgeht.

In French the same conclusions would read:

1. La paralysie agitante n'est pas une névrose et ce n'est pas la sénilité.
2. La base anatomique des symptomes, rigidité musculaire et tremblement, et les symptomes qui en dépendent, réside dans l'affection des muscles.
3. La maladie propre est probablement une toxémie générelle et les phénomènes observés plaident en faveur de l'assumption qu'elle est le résultat d'une altération dans la sécretion des glandes parathyroidiennes.

Comparison with the original English will demonstrate that every writer in every language has it in his power to couch at least the titles and summaries of his articles in an international mother tongue which will be understood by scientists under every flag.

The conclusions of Camp's article would not have been understood at all by the foreigner if they had been worded as follows. He would have had no idea that the writer was discussing paralysis agitans:

1. Shaking palsy is not a nervous disease nor is it the decay of old age.
2. The anatomic groundwork of the perceptible change in function, stiffness of the muscles, the shaking, and the changes in function springing from them, lies in a diseased condition of the muscles.
3. The disease itself is probably due to the action of poisons in the blood, and there are grounds for supposing that it is the result of changes in the secretion of the parathyroid bodies.

Couched in these terms the foreigner would view the summary "as through a glass, darkly," and pass over it without heed, skipping it as absolutely beyond his comprehension, even although he might be specially interested in Parkinson's disease.

In writing for international comprehension, it must be remembered that figures are the same in all languages, and are recognized at once by readers of all nationalities. They frequently provide welcome stepping-stones when an explorer is making his way with difficulty through the morass of an unfamiliar language; "2" is understood by every one, but "two" only by those familiar with English. Such local terms as "mumps," "bowels," "Genickstarre," "kusma," "coqueluche," and the like should be replaced by more scientific terms before an address or article is sent anywhere for publication.

Scientific writers, especially medical writers, are so modest that they often fail to realize that their article—if known to some investigator abroad—may lay the foundation or supply the finishing stone for some important structure with which their name will be indissolubly connected, or, at least, it may save other investigators from going needlessly over the same ground again.

The heedless may ask with the Irishman, "Why should we take so much trouble for posterity? What has posterity done for us?" but the thoughtful will realize that scientific works are a mine of information for workers of this and future generations in all lands, and that everything which tends to aid in the dissemination of scientific facts, now or later, hastens the reaping of the harvest.

Patent and Other Proprietary Medicines Abroad.

The jealous regard for individual rights in the United States and in England gives the probable reason for the reluctance with which these countries have interposed legal restrictions on the trade in "patent" and proprietary medicines. The result is that in these two countries the nostrum maker has had more chance to humbug the public and the profession than in any other country. However, there is an awakening in England, as well as here. The *Lancet* in its issues for November 17 and 24 contains a review of the subject of "patent" and proprietary medicines by a barrister at law, who takes up the matter from the lawyer's viewpoint. While we can not give space to the complete article, which we would like to do, we think the following quotations and abstracts are worthy of reproduction:

"There are virtually no restrictions in Great Britain on the sale of proprietary secret medicines, so long as these contain no scheduled poison and no considerable proportion of alcohol. By the use of the medicine stamp, absolute proprietary rights and absolute secrecy with regard to the composition of any medicine whatever may be indefinitely maintained." Medicines containing scheduled poisons must be sold at retail only by a registered pharmaceutical chemist or chemist and druggist, and in the shop of a registered chemist or of a limited company and must be labeled poison. Scheduled poisons do not, however, include such articles as acetanilid, sulphonal and trional. Excise licenses are necessary for the sale of preparations containing much alcohol.

Patents are granted to medicinal preparations for the period of fourteen years on the theory that they are novel and useful. The patent authorities are bound to search their records to determine the novelty of the new process, but have no authority to refuse the patent on the ground of novelty, but such a patent may be declared invalid if protest is made. According to high authority, a chemical substance is never the subject of patent. It is only the process of manufacture that can properly be patented. A trademark gives usually better protection to the proprietor of a medicine than a patent. To secure the protection of a trademark it is not necessary to show that the remedy is new or useful, but the name must be non-descriptive and can be registered at any time and applied to the remedy whenever it becomes convenient. It protects the property in the name, not only for fourteen years, but forever. The manufacturer attempts to secure a word which approaches, as near as may be safe, to the border line between descriptiveness and non-descriptiveness. The *Lancet* aptly illustrates this by the case of "tabloid." "The registration of the hybrid word, 'tabloid'—derived from a thoroughly familiar Latin root and an equally well-known Greek suffix—was a masterpiece of foresight and sagacity. The word so aptly describes the article to which it is applied that it naturally springs to the lips of the average person who wishes to buy compressed tablets; yet the word has been held by the Court of Appeal to be a valid mark and is private property for all time. The result is that there is a permanent quasi-monopoly in an article of commerce which was at one time the common property of all traders."

The shrewdness of manufacturers has led them to perpetuate the rights obtained by patent after the expiration of the patent by advertising the article under the trademarked name and thus continuing indefinitely the protection of the trademark to the article which has become known under that name. Decisions of the English courts have, however, made this protection invalid if anyone sees fit to contest it. "Where an article has been introduced as new and has first been manufactured under a patent, the name by which it is known becomes common property as soon as the expiration of the patent rights puts an end to the monopoly in the manufacture and sale of the article" (Kerly on Trademarks). Unfortunately, it is not worth while for any one firm to incur the expense of moving the court in order that the whole community may share in the benefits obtained. So, as often as not, the monopoly persists and the public, of course, has to pay.

EXCLUSIVE RIGHTS TO PUBLIC PROPERTY.

A good example of the abuses to which the patent and trademark laws are subject is shown by the following quotation from the *Lancet* article:

"There are at the present moment many firms of manufacturers who devote much thought to the perfection of devices whereby they may secure exclusive rights in this or that medicinal substance which is now public property. In some instances they boldly apply for a patent for some already known chemical substance or process, trusting that the insufficiency of present requirements of the law with regard to novelty in an application for a patent, or the complex language of their specification, or the addition, perhaps, of some illusory 'improvement,' and the inactivity of other traders will enable them to achieve their object. A good example of this is to be seen in the acetyl-salicylic-acid [Aspirin] case recently before the courts. In that case it was shown that a patent had been obtained, and for many years enjoyed, in respect to a chemical compound, the process for manufacturing which was perfectly well known before the patent was issued. The judge, in declaring the patent invalid, remarked that, by error, accident or design, the specification had been so framed as to obscure the subject as much as possible.

"But it is rarely that this method of securing proprietary rights in medicinal substances is attempted. The easier and more usual method is to apply to the coveted remedy a trademark consisting of some 'invented' word. This may be chosen especially to suit the substance or it may be a word which the manufacturer has had 'in stock' while he waits for something to turn up, to which the mark may suitably be applied. For example, since the acetyl-salicylic-acid patent was declared invalid rival firms have endeavored to 'collar' the trade in the compound by applying to it fancy trademarks and attempting to persuade medical practitioners to use these only when prescribing acetyl-salicylic acid. Can it seriously be contended that there is such a difference between the brands of acetyl-salicylic acid sold by A under the name of 'aspirin,' or by B under the name of 'saletin,' or by C under the name of 'salacetin,' or by D under the name of 'acetysal,' or by E under the name of 'xaxa,' and the compound sold under its proper chemical name, as to make it desirable in the interests of the public health that the state should protect five separate proprietary interests in what is to all intents the same article, and that a well known and useful piece of public property? And can it be regarded as desirable that the real nature of the compound should be masked by the use of all these fancy words? To give other examples, different brands of hexamethylene-tetramine have the following fancy names: Urotropine, aminoform, formin, cystamine, uritone and naphthamin, while adrenalin competes with suprarenalin, epinephrin, adnephrin, adrin, suprarenin, haemostasin, renastyptin and paranephrin. All these, or nearly all, are registered trademarks."

AS OTHERS SEE US.

In the second article, the *Lancet*, November 24, the United States is designated as the "home of all that is worst in the proprietary medicine trade." Preparations strong in alcohol and morphin "flourish exceedingly." The attempts at legislation in various states are noted and their failure attributed to "strenuous opposition from the newspaper press, nearly the whole of which is afraid to offend the advertising nostrum manufacturers." "But in some respects the governments have powers which are not possessed in Great Britain. For instance, when 'liquozone' was publicly exposed in 1905, although no attempt was made by any government department in Great Britain to take action in the matter, the San Francisco board of health, exercising power vested in it, promptly forbade the sale or distribution of 'liquozone' on any terms whatever within the area of the board's jurisdiction."

CUBA.

In Cuba a law requiring the publication of the ingredients of proprietary medicines on the labels was modified through the influence of the nostrum proprietors so that the disclosure need only be made to a government official pledged to secrecy. In Porto Rico the law requires that all the formulas of all proprietary medicines shall be filed with the government before the medicines can be sold. The law had an immediate effect on nostrums imported from the United States and the Porto Rico druggists ceased to sell many American proprietary medicines in which they had formerly dealt.

AUSTRIA.

The laws of Austria are especially worthy of study. The qualified pharmacist is the only person who may compound or sell any preparation containing poison, and in all such cases a physician's prescription is necessary. Proprietary medicines can not be placed on the market without permission of the board of health, which must first have been informed of the exact composition of the article, supplied with samples, and satisfied that the compound is in some way novel or useful or that it is presented in an improved form. No recommendation of any proprietary medicine as a cure for any disease is allowed, and all advertisements in the press and elsewhere are under the direct and strict supervision of the police. The price of proprietary medicines is fixed by the board of health, and foreign proprietary medicines are not allowed to enter the country unless under certain exceptional conditions. The law is said to work well.

FRANCE.

In France only qualified pharmacists may make and sell proprietary medicines; the formula must have been published (a) in the "Codex" or (b) by the government, or (c) in an issue of the *Bulletin de l'Académie de Médecine;* the publication of advertisements for secret medicines is contrary to law. The law is loosely enforced.

GERMANY.

Germany excludes foreign proprietary medicines by a heavy import duty and regulates the traffic in home remedies by forbidding advertisements of certain remedies, requiring that the bottles shall not bear labels or be wrapped in circulars containing recommendations, certificates, etc. Some potent medicines may be sold only on a medical man's prescription. The composition of all scheduled remedies must be known to the druggist who sells them. Analyses of new medicaments and secret remedies are being made at the Berlin Pharmaceutical Institute and published in the *Apotheker Zeitung*. The regulations are not the same in all parts of the empire, but the general result is greatly to discourage the sale of secret remedies. A well-known English proprietary medicine was voluntarily withdrawn from the German market by the proprietors, who objected to disclosing the formula of their preparation and did not think that much business could be done if its sale were subjected to the restrictions on secret medicines? The advertising managers of two Hamburg journals were each fined $12 or five days' imprisonment for publishing advertisements of Allcock's plasters, the composition of which was not declared.

AUSTRALASIA.

Australia and New Zealand appear to be especial sufferers from the proprietary medicine evil and the trade has reached enormous proportions there. A writer in *The World's Work* is quoted as stating that these countries imported in 1905 proprietary medicines of the invoice value of nearly $1,500,000, many of them being of a flagrantly noxious character and advertised by grossly fraudulent means. Laws have been passed bringing medicines containing scheduled poisons under the regulations for the sale of poisons, and regulations have been established by the board of health of Victoria limiting the amount of alcohol in non-official remedies of which the average dose is more than one teaspoonful for adults to 10 per cent., also requiring the publication of the presence of a long list of narcotics. The federal government is empowered to forbid the importation of proprietary medicines containing narcotics, etc., without a declaration of the contents on the label and may require the disclosure of trade secrets and may confiscate unapproved articles; the postmaster-general may refuse to transmit letters sent in connection with a fraudulent business.

In New Zealand an attempt was made nearly three years ago to require certain nostrums to the number of 160 to bear on their labels a full disclosure of their constituents, with the quantity of each. The opposition of the proprietary men was so powerful through their influence with the business men and the newspapers that the regulation was toned down until it was required that the disclosure need be made only confidentially to the minister of public health, and only when such disclosure should be specially demanded. Thus whittled down the regulations clearly can not do much to protect the public.

Sanitary Conditions at Mauritius.—Consul Botkin, in his report, gives the following information regarding the sanitary condition of this British island in the Indian Ocean: The island has an area of 715 square miles, including reefs, bars, etc. The population numbers almost 400,000 people, who live on an area of half that of the entire island. The remainder of the island consists of mountains, forests, and military reservations, where dwellings are forbidden, though little of such idle land is fit for human habitation. The total population consists approximately of 260,000 Indians, 5,000 Chinese, 80,000 creoles (negroes and mixed), and 50,000 whites. The drainage is naturally very good, and the natural condition has been greatly improved by the substantial manner of building the roads and the permanent drainage canals on each side of the roads. There are few swampy lands and no stagnant

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water. Water for drinking and culinary purposes is derived mostly from Mare aux Vaceas, a fresh-water lake that occupies one of the large ancient craters near the center of the island and furnishes from some hidden source an inexhaustible supply of very pure water, which is piped to all the towns and villages. Owing to the porous nature of the thin soil and of the lava rocks beneath it, the rain water carries downward much surface filth, contaminating well water and causing much of the fever prevailing among the Indian coolies and lower class of creoles. Malarial diseases are generally present along the coast. The constant prevalence of malarial disorders and fever forced almost the entire white population, years ago, to abandon the port towns. Except during about ninety days in June, July and August, annually, very few white people are to be seen in Port Louis after 5:30 p. m. During those ninety days a moiety of the whites venture to sleep near their places of business, but even then the risk of getting the fever is very great. Bubonic plague is another constant menace to the colored populations of the coast towns. Plague made its first appearance on this island about eight years ago, and all efforts to stamp it out and prevent its recurrence have failed. Beriberi appeared among the convicts at Beau Bassin prison about March 1, 1907, and created great alarm throughout the island, but the health officials soon had the disease under control. They assumed that the cases of beriberi were caused by the daily ration of Saigon rice, which only recently the authorities had been furnishing to the prisoners in lieu of Indian rice as formerly. Wholesome wheat bread was substituted and the use of Saigon rice strictly forbidden at the prison. The result was a disappearance of the malady.

Etiology of Beriberi.—The study of beriberi has been assiduous and has attracted the attention of a number of European and Japanese pathologists. So far no satisfactory explanation of the etiology of the disease has been arrived at, although the recent researches point in the direction of an infection. The investigations of Wright led him to believe that the symptoms are due to an intoxication from the products of the growth of a bacillus which makes its domicile in the upper part of the duodenum. The difficulty of demonstrating the pathogenic character of an organism found in the gastrointestinal canal has, however, prevented his theory from gaining ground. C. W. Daniels ("Studies from Institute for Medical Research, Federated Malay States," vol. 4, part 1), reports a large number of observations on this disease made in the Federated Malay States, which give a basis for certain conclusions, although they do not settle the question of the etiology of the disease. The occurrence of the disease in prisons gives a good opportunity for testing certain theories of the disease, especially those which attribute it to the effect of certain articles of diet and to the location or character of the dwelling. As the prison fare is practically identical in the various prisons, it is possible to eliminate its influence in comparing the statistics of epidemics in different prisons. The author reaches the following conclusions:

1. Beriberi is an infectious disease. As a rule, a short period of incubation and a period of exposure of less than three months is requisite for full development of the disease where the "endemic index" is high.

2. There is no definite proof that intermediate host is required, but the balance of evidence is against its being conveyed by earth, air, water or food or contamination with sewage or other fecal matter.

3. There is some evidence that for a short period only after the occupation of small spaces, beds, bedrooms, etc., the "poison" or carrier of infection may remain.

4. Food as regards quantity and quality, its nature or relative proportions, may have an effect on the susceptibility of the patients, although the proofs are not conclusive, but is not the causative agent.

5. If an intermediate host for the unknown parasite is required, it must be either a cimex or a pediculus. Pediculi as carriers would better explain the incidence of the disease than any other bloodsucker.

6. A closer inquiry into the earlier stages of the disease is required. Where opportunities for such an inquiry occur, renewed attention should be bestowed on the blood and tissues, with a view to determining the presence or absence of any protozoon.

7. Prophylaxis. In view of the failures of various attempts at disinfection of buildings and places, and of various modifications of diet to have a marked effect, more attention should be paid to limiting the chances of personal infection, and particular attention should be paid to the personal cleanliness, freedom from vermin, and isolation of early or trivial cases of the disease.

Pernicious Anemia Cured with Intravenous Injection of Corrosive Sublimate.—A young man was suddenly attacked with high fever of an intermittent type, followed by sweats, and refractory to quinin and change of air. After the febrile period and an afebrile interval of nine days, remittent fever was observed, with vomiting, diarrhea and enlargement of the spleen, while the blood contained only 1,292,000 reds and 5,400 whites, with 25 per cent. hemoglobin. A week later the general condition was progressively worse and the blood picture was 645,000 reds, 4,300 whites and hemoglobin 20 per cent., with numerous megaloblasts. Baccelli made an intravenous injection of 1 cg. (1/6 grain) of corrosive sublimate, according to his well-known technic, giving six injections in the course of 8 days. Within 6 days the blood picture had improved to 1,450,000 reds, 8,800 whites and hemoglobin 29; three days later the reds numbered 2,208,000, the whites 6,500 and the hemoglobin had reached 35 per cent., while within three weeks of the last injection the blood findings were practically normal: Reds 3,500,000, whites 4,500, and hemoglobin percentage 70. Baccelli ascribes the fulminating progressive pernicious anemia to invasion of the system by some unknown germ which is destroyed by intravenous injection of sublimate. The patient has since had an attack of acute gastrointestinal disturbance with malarial symptoms, after errors in diet, and the parasites of quartan fever were found in the blood, but he recovered under a few doses of quinin, and the blood picture at no time showed any tendency to the pernicious anemia type. He has since been in good health. The case is reported in the *Policlinico*, xiv, page 149, 1907, the communication ending with the remark: "We hope that physicians everywhere will give this method of treatment a faithful trial, for the benefit of humanity."

Recent German Legal Decisions in Regard to Medical Fees.—A physician rendered an account in January of the fees due him from a certain patient, and when the account had not been paid in March, he brought suit for the amount. The judge affirmed that the defendant should have paid for the medical services at the time they were rendered. At the very latest he should have paid the bill at once on its presentation. In another suit a man was sent by his family physician to a specialist for a middle ear affection. The patient refused to pay the specialist any more than the regular fees he would have paid the family physician. The judge decided in favor of the plaintiff, affirming that a specialist is not justified in charging more than the regular fee without further notice. In another case the judge decided that the patient must bear the expenses of a consultation of physicians whether he had agreed to the consultation or not. If he wishes to protect himself against such expense he must inform the consulting physicians on their arrival that he does not want their aid. In another case a father had paid the physician's account for treatment of an aural affection in a child. The child returned to the physician again and was given another treatment for which a charge of about 75 cents was made. This the father refused to pay, as the child had returned without his knowledge or consent, but he was ordered by the judge to pay it.—From the *Zeitschr. f. ærztl. Fortbildung*, iv, 95, 1907.

Anesthesia of the Teeth from Cocain Tampon in Nose.—Escat has recently announced, and his statements are confirmed by Lederer, that a tampon moistened with cocain and inserted in the nose will induce anesthesia of the gums and teeth below the nasal fossa. The anesthesia does not develop until from 15 to 20 minutes after the tampon dipped in 5 or 10 per cent. solution of cocain has been introduced into the nose. The anesthesia is most intense about the thirtieth minute; the tampon is then removed, and the anesthesia persists for 15 minutes longer, and then gradually subsides. In examination of 500 patients the anesthesia was found crossed in 8 cases, and in 37 the gum and teeth on the opposite side were also partially anesthetized. In Lederer's experience the anesthesia amply sufficed for operations on the teeth, even extraction of carious roots, and in a communication to the *Prag. med. Wochschr.*, xxxii, 90, 1907, he discusses the anatomic basis for the phenomenon.

Ether to Check Suppuration.—Souligoux and Tillaux have reported unusually fine results from the use of ether in aborting suppurations. They scrub the skin with a freshly boiled

nail brush until the epidermis is removed, and then dress the part with several compresses dipped in ether, covered with oiled silk. Every hour a corner of the dressing is raised and more ether poured in to keep the compresses moist. This is kept up for several days and the suppuration retrogresses to complete absorption in a few days, without the necessity for an incision. An article in the *Tribune Méd.*, xl, 217, 1907, describes some of their experiences. The favorable effect of the ether is ascribed to its pentetration into the skin where it acts as a microbicide while stimulating phagocytosis.

Therapeutics

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and methods of treatment for the diseases seen especially in every-day practice. Contributions will be welcomed from our readers.]

THE METRIC SYSTEM AND HOW TO USE IT.

W. A. Jolley, M.D.
BOULDER, COLO.

(*Concluded from page 1631.*)

1. Liquid Measurements.—Table 1 is intended to facilitate the acquirement of the metric system for practical prescribing, but it is not accurate enough for scientific work.

TABLE 1.

15 minims	1 cubic centimeter.
1 dram	4 cubic centimeters.
1 teaspoonful	5 cubic centimeters.
1 ounce	30 cubic centimeters.
1 pint	500 cubic centimeters.
1 quart	1,000 cubic centimeters.

Prescriptions should be planned so that numbers to which we are accustomed in our monetary system may be used—that is, decimal fractions and the short cuts used in financial calculations.

The majority of acute conditions for which physicians are called to prescribe subside in two or three days and do not require more than about twenty doses of any remedy; **and when it is remembered that a teaspoon holds about 5 c.c it will be seen that 100 c.c is all that need be prescribed. If the dose** of the drug is less than 5 c.c. multiply the selected amount by twenty (20) and add some vehicle to bring the total amount to 100 c.c.

This is a convenient amount to prescribe when the medicine is to be given three times a day for a week. For one month 500 c.c. is approximately the quantity to prescribe if the medicine is to be taken at meal times, as is usual in continued treatment.

When preparing antiseptic solutions 1,000 c.c. or 1 liter is convenient to use.

The following prescriptions will explain this more fully. Aconite is generally used in most fever mixtures, taken 0.5 c.c. at a dose. Liquor potassii citratis may be used as a vehicle. It requires practically no mental effort to write:

℞. Tincturæ aconiti (.5x20) ..... 10|
Liquoris potassii citratis q. s. ad ..... 100|
M. Sig.: A teaspoonful every 4 hours.

The following prescription containing nux vomica may be used when a tonic is to be given, for a month:

℞. Tincturæ nucis vomicæ (.5x100) ..... 50|
Tincturæ gentianæ comp. q. s. ad ..... 500|
Sig.: A teaspoonful before meals.

The metric system has no equal when preparing solutions of a definite percentage. For example, if there were no bichlorid of mercury tablets it would take the ordinary man several minutes to decide on the proper amount to be used in a 2 to 1,000 solution, but a prescription is easily written in the metric system:

℞. Hydrargyri chloridi corrosivi ..... 2|
Aquæ q. s. ad ..... 1,000|
Sig.: Poison: Use for wash.

2. Weights.—It is more difficult to handle weights, for the quantities are so small and the specific gravity varies so greatly that one can not compare the different amounts as with liquids. The term "one grain" conveys to the mind an idea of a definite quantity that has been used as a standard from habit, not for convenience. In the case of alkaloids the grain is divided very minutely and the term is dropped altogether if the amount is a dram or more.

The metric system offers a number which does not have these objections. I will take 0.05 gram, or 50 mg., as a basis for smaller calculations, because it is approximately a grain and can be used even if large quantities are to be weighed.

This has the same advantages that 5 c.c. has in the liquid measurements, but to secure the advantages of the decimal system the prescription should be written for 10, 20 or 50 doses if powders, pills, capsules, tablets, suppositories, or any solids are to be given. For example:

℞. Pulveris Ipecacuanhæ et opii (.5x10) ..... 5|
M. Ft. pulveres No. x.

A great obstacle lies in the fact that tablets are not made in the metric system, so that physicians who dispense their own medicines think that they can use only the apothecaries' weights, but this is a mistaken idea. Tablets can be selected, the dosage of which can be stated approximately in the metric system, and so label them until the tablets are made in the metric weights, as they will be eventually. Table 2 gives an idea of the approximate equivalents, not accurate enough for scientific work, but close enough for practical dispensing.

TABLE 2.

1/500 grain = .000125.			
1/250 grain = .00025.			
1/120 grain = .0005.			
1/60 grain = .001	or	1 milligram.	
1/30 grain = .002	or	2 milligrams.	
1/10 grain = .005	or	5 milligrams.	
1/6 grain = .01	or	10 milligrams.	
1/3 grain = .02	or	20 milligrams.	
1/2 grain = .03	or	30 milligrams.	
1 grain = .05	or	50 milligrams.	
2 grains = .125	or	125 milligrams.	
5 grains = .3.			
15 grains = 1 gram.			
1 dram = 4 grams.			
1 ounce = 30 grams.			

As a practical illustration I select a few of the above equivalents which can be used when ordering tablets:

Aconitin ..... 1/500 grain can be labeled .000125.
Strychnin sulphate ... 1/60 grain can be labeled .001.
Strychnin sulphate ... 1/30 grain can be labeled .002.
Calomel ..... 1/6 grain can be labeled .01.
Calomel ..... 1 grain can be labeled .05.

That sacrifices extreme accuracy for mathematical convenience, as is the practice in writing prescriptions in the apothecaries' system.

It is easy to use the metric weights in ointments and suppositories. For example:

℞. Ichthyol ..... 2|
Olei citronellæ ..... 5|
Adipis lanæ hydrosi ..... 50|
M. et ft. unguentum.

℞. Pulveris opii ..... 2|
Olei theobromatis ..... 20|
M. et ft. suppositoria No. xx.

3. Solids and Liquids.—Manufacturers and wholesale druggists use the avoirdupois ounce (437.5 grains) when selling drugs. A druggist may take an unbroken package without remembering this fact and fill a prescription with it, in which case the patient will receive less than intended. This can not occur in the metric system. The following prescription illustrates the ease with which solids can be accurately combined with liquids:

℞. Potassii iodidi (.25x100) ..... 25|
Syrupi sarsaparillæ comp. q. s. ..... 500|
Sig.: One teaspoonful three times daily.

The accuracy of the metric system is especially evident in handling alkaloids when percentage solutions are to be made, as is often the case with cocain. For example:

℞. Cocainæ hydrochloridi ..... |4
Aquæ destillatæ q. s. ad ..... 10|
M. Sig.: Four per cent. solution of cocain.

4. Practice.—Having thus obtained a theoretical knowledge of the principles involved, a practical knowledge should be acquired by actual work with graduates, bottles, and scales, using common drugs until one is familiar with the different terms and the quantities they represent. The next step can be

combined with a study of the changes in the new Pharmacopeia. A physician might take a file of prescriptions and ascertain the principal drug he is using. He can consult the new Pharmacopeia and study the preparations made from each, the percentage of active principle, dose, and pharmaceutical indication. This information could be written on a card to be studied at leisure, as follows:

Nux vomica:	
Nux vomica contains 1.25 p. c. of strychnin, dose.....	05
Extract nux vomica contains 5 p. c. of strychnin, dose..	0125
Fluidext. nux vomica contains 1 p. c. of strychnin, dose.	05
Tinct. nux vomica contains 1 p. c. of strychnin, dose...	5
Iron and strych. citrate contains 1 p. c. of strychnin, dose	125
Elixir iron, quinin and strych. contains .275 in 1,000.. 4	
Glycerite of iron, quinin and strych. contains .8 in 1,000 1	
Syrup of iron, quinin and strych. contains .2 in 1,000.. 4	
Syrup iron hypophosphite comp. contains .115 in 1.000.. 8	

Such drugs as opium, belladonna, digitalis, coca, cinchona, aconite, ipecac, iron, arsenic, and a few others could be handled as described. Drugs are being standardized and the strength of the active principles expressed in percentages. Tinctures are made to contain a definite percentage of the crude drug. Test solutions and all scientific work is based on the metric system. Continued use will bring out the advantages of this system which are not apparent at first.

To Determine Amount of Active Principle.—The amount of the active principle in each prescription can easily be calculated when written in the metric system as follows: In the first prescription given in this article 10 c.c. of the tincture of aconite was prescribed; 100 c.c. contains .045 gm. of aconitin, 10 c.c. will have .0045, and each dose will contain .0002 aconitin.

In the second prescription it must be remembered that as 100 c.c. of the tincture of nux vomica contains .1 gm. strychnin, then 50 c.c. contains .05, and each dose will represent .0005 strychnin.

In the fourth prescription the amount of opium is 1/10 of the entire quantity = .5, the quantity of morphin is 12 per cent. of .5 = .06. In each powder, .006.

5. Dosage for Children.—One advantage of the metric system is the facility with which dosage for children can be computed. Consider the age of an adult as 20 and use that number for a denominator and the child's age for the numerator, as follows: Estimate the dosage for an adult for one dose in that particular condition. This then will be the total required in a mixture containing 100 c.c. for a child one year old if a teaspoonful is given as each dose; a child two years old will require twice that amount in the 100 c.c., and so on up to the adult.

There is no short cut to knowledge of the metric system. One can not drop at once that which has been used constantly for years; but when once this has been done and the metric system taken up in its place a step forward has been made in practical medicine. Remember the fundamental principle: *Do not transpose doses.*

Scabies.

Sabouraud claims that scabies may be cured in an hour and a half by the following method of treatment:

The patient is first rubbed for half an hour with black soap (green or soft soap); he then takes an alkaline bath for half an hour. After coming out of the bath the entire surface of his body is to be well rubbed with:

℞. Oil of verbena
Gum tragacanth, of each..... 1 part
Precipitated sulphur ..... 100 parts
Glycerin ..... 200 parts
To be well mixed.

A final bath is then to be taken, lasting from fifteen to twenty minutes. The clothing and body linen must be disinfected. During the two weeks succeeding this treatment four baths of starch water are given. In case there should be cutaneous irritation, local applications of ointment of zinc oxid are used.

In the treatment of this condition Potter recommends the following combination:

℞. Hydrargyri chloridi corrosivi.....gr. iv		26
Alcoholis .....f℥vi	24	
Ammonii chloridi.....ʒss	2	
Aquæ rosæ q. s. ad.....℥vi	180	

M. Sig.: Apply as a lotion to affected parts.

Bulkley advises the following:

℞. Sulphuris sublimati .....ʒii	8	
Olei cadini .....f℥ii	8	
Cretæ preparatæ .....ʒiiss	10	
Saponis viridis		
Adipis, āā .....ʒi	30	

M. Ft. unguentum. Sig.: Apply to affected parts.

For children and individuals with delicate and sensitive skin Stelwagon recommends the following:

℞. Sulphuris sublimati		
Balsami peruviani, āā .....ʒii-vi	8-24	
Adipis benzoinati		
Petrolati, āā, q. s. ad.....℥iv	120	

M. Ft. unguentum. Sig.: Apply to affected areas.

For the average dispensary patient the same author advises the following:

℞. Sulphuris sublimati.....ʒiv-vi	15-24	
Balsami peruviani .....ʒiv	15	
Beta-naphthol .....ʒi-ii	4-8	
Adipis benzoinati		
Petrolati, āā, q. s. ad.....℥iv	120	

M. Ft. unguentum. Sig.: Apply to affected areas.

Before the ointment is applied Stelwagon has the patient take a hot bath, using plenty of soap, preferably green soap unless the skin is over-sensitive. All the affected parts are rubbed thoroughly with a coarse wash cloth, or, in case of patients with rather tough skin, with a brush. The ointment is then rubbed in vigorously over the entire surface below the chin line, particularly in areas where the eruption is well marked. The ointment is rubbed in night and morning for from two to four days, the patient wearing the same underwear continuously. Ten or twelve hours after the last application the patient takes a bath and changes his underwear; the bed linen is also changed. Stelwagon asserts that one such course of treatment thoroughly carried out usually suffices. Itching usually lessens or wholly disappears after the first application; slight itching may occur toward the end of the treatment, due to the irritation of the sulphur. Occasionally this may be mistaken for a return of the scabies.

After the preliminary soaking and scrubbing Crocker, in private practice, uses the following application recommended by Kaposi:

℞. Naphthol	15 parts
Prepared chalk	10 parts
Soft soap	50 parts
Lard 100	parts

M. To be well rubbed into the affected areas.

For infants and young children Crocker uses this half strength and omits the soft soap. It is not irritating to the skin, as is sulphur, and it has no odor. It is too expensive, however, for dispensary practice.

Incompatibles.

PRECIPITATION BY ACID.

In the following prescription the liquid extract of licorice is evidently intended to conceal the taste of the quinin, but the acid precipitates the glycyrrhizin, making a turbid mixture and much reducing the sweetness of the licorice:

℞. Quininæ sulphatis.....gr. xv	1	
Acidi sulphurici dil.....ʒi	4	
Fluidextracti glycyrrhizæ .....f℥ss	15	
Aquæ q. s. ad.....f℥iii	90	

The *Pharmaceutical Journal* advises the druggist in this case to ask the prescriber to authorize omission of the acid and suspension of the quinin instead.

Medicolegal

Liability in Turning Sick Person Improperly Away.

The Supreme Court of Minnesota says that the case of Orlando Depue vs. John Flateau, Sr., and John Flateau, Jr., was an unusual one on its facts, and "all-four" precedents are difficult to find in the books. In fact, after considerable research, the court has found no case in which the facts are identical with those in this case. The facts were, briefly, as follows:

The plaintiff, a cattle buyer, called at the house of the defendants to inspect some cattle with a view to purchase.

Being unable to decide that evening, he requested the privilege of remaining over night; this was not granted by the defendants. Flateau senior invited him to remain for supper, which he did. After the evening meal, the plaintiff and both defendants repaired to the sitting room of the house, and the plaintiff made preparation to depart for his home. His team had not been unhitched from the cutter, but was tied near the house. Though the evidence was somewhat in doubt as to the plaintiff's condition while in the defendants' home, it was clear that he was seriously ill and too weak to take care of himself. He was found early next morning about three-quarters of a mile from the defendants' home nearly frozen to death. The result of his experiences necessitated the amputation of several of his fingers, and he was otherwise physically injured and his health impaired.

At the conclusion of the plaintiff's case, the trial court dismissed the action on the ground that the evidence was insufficient to justify a recovery.

The Supreme Court reverses an order denying a new trial. It says that two questions were presented for consideration: (1) Whether, under the facts stated, the defendants owed any duty to the plaintiff which they negligently violated; and (2) whether the evidence was sufficient to take the case to the jury on the question of whether the defendants knew, or, under the circumstances disclosed, ought to have known, his weak physical condition, and that it would endanger his life to send him home unattended.

It was insisted by the defendants that they owed the plaintiff no duty to entertain him during the night in question, and were not guilty of any negligent misconduct in refusing him accommodations, or in sending him home under the circumstances disclosed. Reliance was had for support of this contention on the general rule as stated in Union Pacific Railway Co. vs. Cappier, 66 Kan. 649, where the court said: "Those duties which are dictated merely by good morals or by humane considerations are not within the domain of the law. Feelings of kindness and sympathy may move the Good Samaritan to minister to the sick and wounded at the roadside, but the law imposes no such obligation; and suffering humanity has no legal complaint against those who pass by on the other side. . . . Unless a relation exists between the sick, helpless or injured and those who witness their distress, of a nature to require and impose on them the duty of providing the necessary relief, there is neither legal obligation to minister on the one hand, nor cause for legal complaint on the other."

This is no doubt a correct statement of the general rule applicable to the Good Samaritan, but it by no means controls a case like that at bar. The facts of this case bring it within the more comprehensive principle that whenever a person is placed in such a position with regard to another that it is obvious that, if he does not use due care in his own conduct, he will cause injury to that person, the duty at once arises to exercise care commensurate with the situation in which he thus finds himself, and with which he is confronted, to avoid such danger; and a negligent failure to perform the duty renders him liable for the consequences of his neglect. This principle applies to varied situations arising from non-contract relations.

In the case at bar the defendants were under no contract obligation to minister to the plaintiff in his distress, but humanity demanded that they do so, if they understood and appreciated his condition. And, though those acts which humanity demands are not always legal obligations, the rule to which the court has adverted applied to the relation existing between these parties on this occasion and protected the plaintiff from acts at their hands that would expose him to personal harm. He was not a trespasser on their premises, but, on the contrary, was there by the express invitation of Flateau senior. He was taken suddenly ill while their guest, and the law, as well as humanity, required that he be not exposed in his helpless condition to the merciless elements.

In its substantial facts this case is not unlike that of Railway Co. vs. Marrs, 27 Ky. Law Rep., 388. In that case the railway company was held liable for the death of one Marrs, who was found asleep and intoxicated in the railway yards, and having been aroused and ordered off the premises, neglected to go, and about forty minutes later, having again fallen asleep on the tracks, was run over and killed.

The case at bar is much stronger, for here the plaintiff was not intoxicated, nor a trespasser, but, on the contrary, was in the defendants' house as their guest, and was there taken suddenly ill in their presence, and, if his physical condition was known and appreciated, they must have known that to compel him to leave their home unattended would expose him to serious danger. If the defendants knew and appreciated his condition, their act in sending him out to make his way to Madelia the best he could was wrongful and rendered them liable in damages.

The Supreme Court does not wish to be understood as holding that the defendants were under absolute duty to entertain the plaintiff during the night. Whether they could conveniently do so did not appear. What they should or could have done in the premises could only be determined from a full view of the evidence disclosing their situation, and their facilities for communicating his condition to his friends or near neighbors, if any there were. All these facts would enable the jury to determine whether, within the rules of negligence applicable to the case, the defendants neglected any duty they owed the plaintiff.

Pupils with Certificates from Anti-Vaccinationist May be Excluded During Epidemic.

The Supreme Judicial Court of Massachusetts says that in the two cases of Mary D. Hammond and J. Forest Hammond vs. Town of Hyde Park, each of the plaintiffs was suspended from one of the public schools of the defendant town because of a refusal to be vaccinated at a time when smallpox was prevalent in the town. A short time before the suspension the school committee made a regulation as follows: "Voted to exclude from attendance all unvaccinated children, and also all children who do not present a certificate of revaccination as required by the board of health, until such time as this committee may become satisfied that the imminent danger from smallpox in our town has ceased."

The Massachusetts statutes give the school committee of a town "general charge and superintendence of all public schools," etc. This power is broad and ample. For the promotion of the best interests of pupils and of all the people, it necessarily has been construed broadly by the court.

In section 6 of chapter 44 of the Revised Laws of Massachusetts is this language: "A child who has not been vaccinated shall not be admitted to a public school, except on presentation of a certificate signed by a regular practicing physician that he is not a fit subject for vaccination." Each of these plaintiffs presented such certificate. It appeared that it was given without an examination of either of them; and the daughter of the physician testified, he being deceased, that her father was a member of what is called the Anti-Vaccination Society, and it was his opinion that nobody was a fit subject for vaccination, and he would give a certificate to anybody who applied for it that that person was not a fit subject for vaccination.

The judge instructed the jury as follows: "The statutes seem to provide that the school committee may exclude from the public schools children who have not been vaccinated, except such as present certificates from a practicing physician that they are unfit subjects for vaccination. The plaintiffs in these cases have presented certificates, which the court rules were sufficient in point of form, that they are or were unfit subjects for vaccination. That having been done, the school committee has no authority under the laws of this commonwealth to exclude such children from the public schools." He then ordered verdicts for the plaintiffs and reported the cases for the determination of this court.

The question on this instruction is whetner the statute which absolutely forbids the admission of an unvaccinated child to a public school at any time without a certificate from a physician is an implied enactment that, with a certificate, such a child shall be permitted to attend at all times, even when smallpox is raging in the neighborhood. The court sees nothing to indicate such an intention on the part of the legislature. This is a prohibition of attendance at any time except on a

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condition. There is an implication that, with the certificate, such a child properly may be permitted to attend when there is no particular reason to apprehend danger; but it was not intended to take away from the school committee the power to make proper regulations for the protection of all the pupils, if the prevalence of smallpox seems to require special precautions. The ruling of the lower court is wrong.

Physician Not Liable for Communication of Smallpox.

The Supreme Court of Illinois says that the case of Haas vs. Tegtmeier was brought for the recovery of damages alleged to have been caused by the defendant, a physician, bringing into and infecting the plaintiff and his minor children with smallpox while the defendant was treating the wife of the plaintiff for pneumonia.

The first count of the amended declaration, or statement of the plaintiff's cause of action in this case, charged that the defendant, during the time he was treating the plaintiff's wife, was also treating a patient for smallpox; that it became the duty of the defendant to exercise reasonable care and caution to avoid carrying and spreading said contagious disease to the family of the plaintiff, but that, disregarding his duty in that regard and without taking necessary precautions, the defendant infected the plaintiff and four of his minor children with said disease, from which they became dangerously ill, etc. The second count was substantially like the first count, except that it stated the case with a little more elaboration and detail. The damages were laid at $2,500.

After issue joined a trial was entered on with a jury, and, during the progress of the trial, the plaintiff asked and was granted leave to amend the second count of the declaration. What was filed in pursuance of that order "by way of amendment" was not an amendment to the second count of the declaration, but was a new and complete count within itself. Said count averred that the plaintiff learned that the defendant was treating a person afflicted with smallpox on the 27th day of December, 1904, and on that day notified the defendant to cease treating the plaintiff's wife and desist from visiting the plaintiff's house; that thereupon the defendant assured the plaintiff that he had not entered the house of the smallpox patient and would not do so, but that he had treated him by seeing him through a window from the outside, and would so continue to do, and that there was, therefore, no danger of communicating the disease from the smallpox patient to the plaintiff or his family. The declaration averred that, relying on these assurances, the plaintiff permitted the defendant to continue his visits to his house for the treatment of his wife until her death, which occurred Jan. 5, 1905; that the assurances and representations of the defendant that he had not entered the house and room in which the smallpox patient was confined were false and untrue; that he had entered said house and room, and continued to do so until the death of the patient, Jan. 1, 1905, and that in consequence thereof he caused the plaintiff and four of his minor children to contract said contagious disease of smallpox. The damage in this count also was $2,500. The defendant demurred to this count of the declaration and the trial court sustained the demurrer.

The trial proceeded to a conclusion under the amended declaration and issue joined thereon, and resulted in a verdict for the defendant, on which the trial court rendered judgment for the defendant. The plaintiff appealed to the Appellate Court, where the judgment of the Circuit Court was affirmed, and then he appealed to the Supreme Court.

The Supreme Court, unfortunately, does not state any of the grounds of either the Circuit Court or Appellate Court decisions. It simply dismisses the appeal to it because of the statute providing for an appeal from the Appellate Courts to the Supreme Court, in actions where there has been no trial on an issue of fact in the lower court, only where the amount claimed in the pleadings exceeds $1,000. It was contended that the count demurred to stated a different cause of action from that stated in the first count, and presented an issue of fact in the Circuit Court on which there was no trial. But the Supreme Court does not agree with that. It says that it was true that the amended count averred that the defendant was permitted to continue his visits to the plaintiff's house by reason of false representations that the defendant had not been in the house and room of the smallpox patient, and would not enter therein, but such amended count, like the original counts, counted on damages claimed to have been sustained by the plaintiff by reason of the defendant infecting his family with smallpox.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal, New York.

May 4.

1 *Raynaud's Disease. J. V. Shoemaker, Philadelphia.
2 Non-Operative Treatment of Gastric Diseases. F. B. Turck, Chicago.
3 Mental Responsibility and Crime. A. Gordon, Philadelphia.
4 *Mucous Mucomembranous and Membranous Colitis. J. P. Tuttle, New York.
5 *Treatment of Chronic Suppuration of the Middle Ear. E. B. Dench, New York.
6 *Preliminary Consideration of the Treatment of Cancer. T. H. Evans, Philadelphia.
7 Artificial Hyperemia, with Special Reference to Bier's Method. H. F. Wolf, Philadelphia.
8 *Case of Cerebellar Abscess. J. D. Richards, New York.
9 Professional Confidences. E. S. McKee, Cincinnati.
10 *Cesarean Operation Under Difficulties. F. T. Woodbury, Gandara, Island of Samar, P. I.

1. **Raynaud's Disease.**—Shoemaker reports a case of this affection, occurring in a woman 34 years of age. The disease was of eight years' duration. The patient is still under treatment.

4. **Colitis.**—Tuttle claims that catarrhal colitis is as common a disease as catarrhal rhinitis. As causes of membranous colitis he mentions movable kidney, appendicitis, gallstones, cholecystitis and gastroenteroptosis. The clinical history of colitis is discussed fully.

5. **Suppuration of Middle Ear.**—Dench claims that the radical operation offers the ideal method for the treatment of chronic suppuration of the middle ear.

6. **Treatment of Cancer.**—Evans says that in taking up the subject of carcinoma it is essential to recognize the resulting morbid physiology and the antecedent changes in nutrition. Before using injections of trypsin and amylopsin, he placed his patients on a diet suitable for diabetics, because he thought he had reason to suspect a relation between sugar metabolism and conditions of malignant growth which have to do with digestive changes. He insists on the necessity of regulating the diet when the Beard treatment of carcinoma is employed. He invariably regulates the carbohydrate hygiene. A restricted diet, a limitation of sugars, even so far as to absolute diabetic diet, will allow more dosage of trypsin and amylopsin and will prevent, he asserts, the untoward results which have been reported as due to them.

8. **Cerebellar Abscess.**—Richards reports a case of cerebellar abscess following chronic suppurative otitis media, in which an operation was done successfully. The abscess was evacuated and rubber drainage tubes were inserted. These were replaced later by perforated bone tubes. No attempt was made to introduce the finger into the brain or to indulge in unnecessary manipulation. The patient is alive and in good health.

10. **Cesarean Section Under Difficulties.**—Woodbury reports a case of Cesarean section, done at Gandara, Island of Samar, P. I., under most difficult circumstances. Both mother and baby lived.

Medical Record, New York.

May 4.

11 *Pulmonary Tuberculosis. H. C. Clapp, Boston.
12 Surgery in Diabetes. J. Wiener, New York.
13 *Rare Forms of Chorioiditis. C. S. Bull, New York.
14 Treatment of Typhoid and Pneumonia. L. Weber, New York.
15 *Pus Tubes in the Male. W. T. Belfield, Chicago.
16 The Preappendicitis State. J. G. Sheldon, Kansas City, Mo.

11. **Pulmonary Tuberculosis.**—Clapp gives details for the guidance of the physician in the treatment of the consumptive

patient at his own home. Such treatment must always be under the supervision of the physician. Among poor patients he advises the formation of a tuberculosis class, to which patients come once a week for directions. He maintains that the patient should go out of doors in rainy and snowy weather, at all times of the year, properly protected from wet and wind. His clothing should be of the lightest weight and the smallest number of garments of any material that will keep him comfortable. Clapp believes that a morning temperature of 99 F. indicates no exercise for the day, while over 101.5 calls for rest in bed for part of the day.

13. **Rare Forms of Chorioiditis.**—Bull calls attention to the chorioiditis that arises in the course of severe malarial infection and in intestinal intoxication. It is caused by microorganisms conveyed to the eye by the blood current, where they are arrested, and adhere to the walls of the chorioid vessels. Malarial chorioiditis is rare and found only in the severe southern forms of the disease. The entire uveal tract may be involved, including the chorioid, iris and ciliary bodies. The attacks are periodic, relapses are frequent, and the course is tedious. Treatment consists in the administration of quinin, iron and arsenic, with attention to the diet and general hygiene. Chorioiditis from intoxication of gastrointestinal origin is a still rarer condition. In these chorioid infections there are the usual symptoms. The physical findings are yellowish patches on the retina, similar to those seen in malaria, and a marked skin eruption of a pemphigoid type.

15. **Pus Tubes in the Male.**—Belfield says that pus infection in the seminal tube of the male is quite as frequent as in the Fallopian tube in the female. It is infrequently recognized, since the symptoms are common to other urinary conditions. Gonococci, pyogenic bacteria and tubercle bacilli are some of the causes of infection. The author suggests simple incision with a cautery knife from the rectum to relieve pus tubes. He also suggests that the vas deferens may be opened, the cut edges stitched to the skin and a solution injected through a curved hypodermic needle. Injections are made daily until the infection is over, when the fistula can be closed.

Boston Medical and Surgical Journal.

May 2.

17 Gall-Bladder Disease, with Special Reference to Its Gastric Symptoms. P. K. Brown, San Francisco.
18 *Sahli's Desmoid Reaction. H. W. Carey, Troy, N. Y.
19 *Roentgen Diagnosis of Urinary Calculus. P. Brown, Boston.
20 Summer Climate of Oracle, Pima County, Arizona. I. W. Brewer, Fort Huahuca, Ariz.
21 Extensive Nerve Injury from Removal of Cervical Glands. J. W. Courtney, Boston.

18. **Sahli's Desmoid Reaction.**—Carey verifies Sahli's results in determining the sufficiency of gastric digestion by means of the desmoid capsule. In the 25 cases on which he bases his results, it was found that, with but one exception, there was no discrepancy between the desmoid reaction and the analysis of the test breakfast. He believes that this reaction is of value in determining the digestive sufficiency of the gastric juice and its ability to digest the meal with which the capsule is given. In other words, it is a test for both free hydrochloric acid and pepsin, and a positive reaction indicates that both constituents are present in sufficient quantities to digest the full meal. As a means of differentiating between various functional disorders it is of little or no value. Neither does it give any clue as to stasis or loss of motility. Carey believes, therefore, that, while it can not take the place of the stomach tube and test breakfast, it can be used as a valuable control. It permits of differentiating the mild from the severe cases of gastric insufficiency.

19. **Roentgen Diagnosis of Urinary Calculus.**—Brown emphasizes the value of what he terms the ante-operative preparation of the patient when examination for urinary calculus is to be made by means of the Roentgen ray. He advocates local compression of the area to be examined and a previous emptying of the stomach and bowel, so as temporarily to force away the intestinal content from the renal, ureteral or vesical regions. Arrangements for such an examination should be made at least 24 hours ahead. He recommends the use of castor oil as a preliminary purgative and the additional use of a soap-suds and glycerin enema shortly before the sitting.

Lancet-Clinic, Cincinnati.

April 27.

22 The Reason Why: Especially Concerning the Stomach. M. A. Austin, Anderson, Ind.
23 Pruritus of the Anal Region. B. Asman, Louisville, Ky.
24 *Present Operative Necessities for Cure in Tuberculous Orchitis. C. E. Barnett, Fort Wayne, Ind.
25 The Opsonins. A. L. Knight, Madisonville, Ohio.

May 4.

26 Diagnosis and Treatment of Fracture Occurring in the Vicinity of Joints. W. D. Haines, Cincinnati.
27 A Possible Explanation of the Formation of Drug Habits. H. A. Rodebaugh, Columbus, Ohio.
28 Early Diagnosis of Phthisis Pulmonalis in Adolescents. G. Strohbach, Cincinnati.

24. See abstract in THE JOURNAL, Dec. 8, 1906, page 1944.

St. Louis Medical Review.

April 27.

29 Three Cases of Balantidium Coli. D. A. Gray, Little Rock, Ark.
30 Etiology of Chronic Enlargement of Prostate. H. J. Scherck, St. Louis.
31 Diagnosis of Obstructive Prostatic Hypertrophy. B. Lewis, St. Louis.
32 Hypertrophy of Prostate Not Causing Urinary Obstruction. J. L. Boogher, St. Louis.

Journal of Cutaneous Diseases, New York.

April.

33 *Diet as an Etiologic Factor in Diseases of the Skin. H. W. Stelwagon, Philadelphia.
34 *Diet as a Therapeutic Measure in Diseases of the Skin. G. H. Fox, New York.
35 *Dermatitis Exfoliativa. B. Foster, St. Paul.
36 Significance of Indican in the Urine or Those Afflicted with Certain Diseases of the Skin. M. F. Engman, St. Louis.

33. **Diet as a Cause of Skin Diseases.**—Stelwagon says that, while certain foods are toxic to some individuals, it must be remembered that skin eruptions may be the result of overeating, or that even underfeeding, may be the result of toxic and putrefactive changes which the food has undergone before or immediately after consumption, and, further, the possibility of chemical preservatives and not the food itself should be borne in mind.

34. **Diet in Treatment of Skin Diseases.**—Fox believes that many persons affected with diseases of the skin are in the habit of eating too much, especially of nitrogenous foods. He says that, when prescribing a diet, it is far better to allow a few nutritious and easily digested articles for a time than to make out an expurgated diet list. The effect of the diet on the disease must be studied carefully in order that the patient may eat only that which he can digest and which does the most good. The food should also be prepared properly and the patient should eat regularly without haste and not while under the stress of excitement and worry.

35. **Dermatitis Exfoliativa.**—Foster reports 12 cases of this affection, four of which occurred shortly after birth. The treatment which Foster has found most satisfactory consists of prolonged permanent warm baths. After coming out of the bath the patient is enveloped in flannel, soaked with either cod-liver oil or olive oil. Foster suggests administering carbolic acid internally in one-half grain doses, watching the kidneys carefully.

St. Paul Medical Journal.

April.

37 *Dangers in Impure Foods. V. C. Vaughan, Ann Arbor.
38 *How Far Has the Sanatorium Treatment of Tuberculosis Proved Successful? A. C. Klebs, Chicago.
39 *Management of Gastric Ulcer. J. W. Bell, Minneapolis.
40 *Therapeutic Abortion. C. Johnson, Willmar.

37. **Dangers in Impure Foods.**—The dangers and the nature of impure foods are set forth fully by Vaughan; in fact, he covers almost the entire realm of food adulterations as well as food preservatives. He lays down the following requirements as being, in his opinion, the essentials of a substance before its employment as a food preservative should receive legal sanction: 1. It must be a real preservative, keeping the food in a wholesome condition and not merely retaining the appearance of freshness while bacterial changes continue. 2. In the largest quantities used, it must not materially impair any of the digestive processes. 3. It must not be a self-poison in any amount; or if such, it must be added to foods only by persons qualified by special training and officially authorized, and food containing these substances must be labeled plainly and the kind and amount of the preservative used must be made known, not only to the buyer but to each consumer.

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38. Sanatorium Treatment of Tuberculosis.—Klebs' views on this subject are so well known that it is not necessary to repeat them.

39. Management of Gastric Ulcer.—The treatment described by Bell agrees with that generally employed in cases of acute and chronic gastric ulcer.

40. Therapeutic Abortion.—Johnson is of the opinion that therapeutic abortion is generally advised too reluctantly. Instead of being a remedy of last resort, it should be advised early, whenever the condition of the mother is such that there is no reasonable probability that she can carry the fetus to the age of viability without serious danger to life and health.

Northwestern Lancet, Minneapolis.

April 1.

41 *Significance and Danger of Chronic Otorrhea. C. J. Spratt, Minneapolis.
42 *Administration of Mercury in Treatment of Syphilis. G. P. Crume, Minneapolis.
43 Surgical Diagnosis. J. E. Moore, Minneapolis.
44 *Hydatid Moles. O. T. Batcheller, Brainerd.
45 *Refractive Error as an Etiologic Factor in Headache. C. L. Sherman, Luverne.
46 Case of Submucous Nasal Septum Resection. R. A. Campbell, Minneapolis.

41. Chronic Otorrhea.—Spratt points out the dangers that may result from a neglect to treat a chronic discharge from the ear. He advises early incision of the tympanic membrane as a prophylactic measure, and cleanliness, free drainage and operation, if necessary, as curative measures.

42. Mercury in Syphilis.—The use of mercury in the treatment of syphilis is discussed in general by Crume. With regard to hypodermic injections, the only objection he has to them is that they are painful; nor are they indicated, he says, when the patient is debilitated by other diseases or when he is very obese. Certain it is, Crume declares, that it makes relapses not only less severe and frequent, but obstinate, virulent and malignant types become a rarity.

44. Hydatid Moles.—Batcheller reports one case and discusses the clinical history of the condition. His patient went to term, delivery was uneventful, but the postpartum flow lasted for about two weeks.

45. Refractive Error as Cause of Headache.—Sherman reports three cases to illustrate how both refractive error and other derangements must be corrected in order to secure relief from severe headaches.

Kentucky Medical Journal, Bowling Green.

April.

47 Skilful Use of Digitalis. T. C. Holloway, Lexington.
48 *Treatment of Acute Gonorrhea. E. L. Heflin, Louisville.
49 Rational Gynecology. F. L. Koontz, Louisville.
50 Surgery of the Stomach. J. R. Wathen, Louisville.
51 First Hour Surgery in Strangulated Hernia. J. G. Carpenter, Stanford.
52 La Grippe. J. T. Price, Harrodsburg.
53 The Doctor's Automobile. J. B. Bullitt, Louisville.
54 *Treatment of Placenta Prævia. F. M. Beard, Shelbyville.
55 *An Unusual Obstetric Case. P. Beauchamp, Adairville.
56 *Cancer of the Intestine. D. Barrow, Lexington.
57 Doctor's Differences: Their Cause and Cure. G. G. Thornton, Lebanon.
58 Diagnosis and Treatment of Incipient Tuberculosis. J. Martin, Cynthiana.
59 Pneumonia. E. T. Bruce, Louisville.

48. Treatment of Gonorrhea.—The point especially emphasized by Heflin is that whether the case be treated by irrigations, injections, internal administration, or along other lines, the treatment should be continued until the patient is well—not until the discharge ceases, but until the urine is free from shreds and the microscope fails to reveal the presence of the diplococcus of Neisser.

54. Treatment of Placenta Prævia.—Beard reports two cases of placenta prævia, in one of which there was a twin pregnancy. In the latter there was a double placenta prævia marginalis. In both cases a successful delivery was effected.

55. Unusual Obstetric Case.—The case reported by Beauchamp was one of left acromio-iliac presentation. Embryotomy was done after all other attempts at delivery had failed. The head was hydrocephalic; the occipito-mental diameter was 12 inches.

56. Cancer of Intestine.—Barrow reports three cases of cancer of the intestine, in which operation was done. One patient died 18 months after the operation from recurrence of the growth, causing obstruction. The remaining two patients are well, one two years, and the other four years after operation. In both of these cases the tumor involved the cecum, necessitating the resection of a portion of the cecum and the ileum.

Bulletin of the Johns Hopkins Hospital, Baltimore.

April.

60 The Library of a Medical School. W. Osler, England.
61 Some Ana of the Marburg Collection. M. L. Raney, Baltimore.
62 *Method of Preserving Outlines of Visceral Lesions on Nainsook or Suisse Material. H. A. Kelly, Baltimore.
63 Clinical Study of Mushroom Intoxication. W. W. Ford, Baltimore.
64 *Review of 105 Reported Cases of Acute Pancreatitis. A. Egdahl, Iowa City, Iowa.
65 Vena Cava Superior Receiving Two Upper Right Pulmonary Veins and Opening into Both Atria. N. W. Ingalls, Cleveland.

62. Preserving Outlines of Visceral Lesion.—In order to increase the accuracy of his examination, Kelly makes a pictorial record on a transparent stiff tissue, such as nainsook, or suisse material, laid over the abdomen, on which the surface markings seen beneath are easily transcribed. New records are made each time the patient returns for examination, thus permitting of comparison. An analine or crayon pencil may be used.

64. Acute Pancreatitis.—Egdahl concludes his review of 105 cases of acute pancreatitis as follows: 1. Gallstones are probably the most common single cause of pancreatitis. Judging from this series, about 42 per cent. of the cases of acute pancreatitis are associated with gallstones. 2. Gastrointestinal disorders are the next most common cause of acute pancreatitis. In this series of cases about 30 per cent. belong to this group. Seventeen out of 32 of this group gave a history of alcoholism. It is probable that retrojection of bile may be caused by intestinal disorders closing the papilla of Vater. 3. Acute pancreatitis may be caused by many other conditions, such as typhoid, tuberculosis, mumps, trauma, syphilis, emboli, appendicitis, malaria and gastric ulcer. 4. The organism most commonly present is *B. coli communis;* next comes the streptococcus and the staphylococci. 5. Typhoid is the most common of the acute febrile diseases present according to the previous histories of these acute cases of pancreatitis. In the present series three were associated directly with typhoid fever alone, and four had suffered from typhoid some time before the onset of the pancreatitis, and had apparently recovered; another had had typhoid and erysipelas. But two out of these cases were associated with gallstones.

Journal of the Arkansas Medical Society, Little Rock.

April 15.

66 *Injuries of the Eyeball. J. W. Price, Memphis.
67 Congestion of the Brain in Infancy. W. T. Whaley, McNeil.
68 *Malformations and Maternal Impressions. G. A. Warren, Black Rock.
69 Treatment of Diseased Conditions of the Kidneys. R. L. Saxon, Holly Grove.
70 Hemoglobinuria. R. N. Smith, Collins.
71 Anthrax of the Postnasal Space. C. C. Stephenson, Little Rock.

66. Injuries of Eyeball.—Price reports five cases of injury of the eye as illustrative of some points which he makes.

68. Maternal Impressions.—Warren believes in maternal impressions. He thinks that those who laugh at such things are laughing at science and that mind has power over matter *in utero*. He reports one case and refers to a number of others in support of his views.

Annals of Surgery, Philadelphia.

April.

72 *Experience in Cerebral Surgery. F. Hartley and J. H. Kenyon, New York.
73 *Possibilities and Limitations of Brain Surgery, with Especial View to Traumatisms. F. D. Gray, Jersey City, N. J.
74 *Value of Trephining as a Palliative Measure in Tumors of the Brain. H. A. Bruce, Toronto.
75 *Operations for Neoplasms of the Tongue. J. Rogers, New York.
76 *Method of Using Tongue in Supplying Defect of Cheek. W. Bartlett, St. Louis.
77 *Injuries and Diseases of the Hyoid Bone. R. Winslow, Baltimore.
78 *Symptoms and Signs in Urinary Lithiasis. C. L. Leonard, Philadelphia.
79 *Tuberculosis of the Bladder. G. Walker, Baltimore.
80 Circumcision. A Plastic in Constriction Prepuces. O. H. Allis, Philadelphia.

72. Experiences in Cerebral Surgery.—Hartley and Kenyon present much valuable material in the narration of their ex-

periences in cerebral surgery. They describe an armamentarium which is the outcome of their experiences, one on which they can rely absolutely in every case, and they give in detail their method of procedure in all kinds of cases, citing illustrations in order to elucidate their statements. The paper is well illustrated.

73. **Brain Surgery for Traumatisms.**—Gray reports five cases and calls attention to the importance of proceeding carefully before passing an opinion on the nature and extent of the injury in cases of traumatism of the skull.

74. **Tumors of the Brain.**—Bruce reports five cases of tumor of the brain, which show how important it is that such cases should be submitted to surgical treatment early, and what good results can be obtained by the safe and simple procedure of trephining.

75. **Operations for Tumors of the Tongue.**—Rogers presents a brief historical review of the different typical operations and a short description of each to aid in the selection of a method which may be suitable for any given case.

76. **Plastic Surgery of Cheek.**—Bartlett reports the case of a man 71 years of age who had a carcinomatous ulceration of the cheek. The ulcer was excised, but the opening left was so large that it was impossible to bring the edges of the mucous membrane together. Bartlett then decided on carrying out the following procedure: A deep horizontal incision was made into the side of the tongue, practically separating half of the member into two flaps, an upper and a lower. The edge of the upper flap was sutured with catgut to the fringe of mucous membrane which adhered to the superior maxilla. The edge of the lower flap was united in like manner close to the inferior maxilla. The separation of these tongue flaps revealed a raw muscle surface which furnished the best sort of a base on which to implant the superficial tissues of the cheek. By undermining the skin above and below the external defect the edges were brought together easily. A few silkworm sutures were placed through the skin, and the body of the tongue, in order to approximate the edges of the former, and to obliterate any dead space which might otherwise have formed. On the eleventh day the silkworm sutures were removed and the healing was found to be perfect. The tongue was anchored in place. Fifteen days after the operation chewing, talking and swallowing were absolutely normal. The tongue, although fixed in its new position, was still capable of a very wide range of movement. The patient had had no teeth on the operated side, but Bartlett states that the method could be made applicable to any patient simply by withdrawing the teeth on the affected side.

77.—See abstract in THE JOURNAL, Jan. 26, 1907, page 352.

78. **Urinary Lithiasis.**—Leonard points out the difference in symptoms and signs between renal and ureteral lithiasis that have a bearing on the indications for treatment after the size and position of the calculus have been determined by the Roentgen ray. The study is based on 352 cases examined by the Roentgen rays for suspected calculus.

79. **Tuberculosis of the Bladder.**—Walker reviews the cases of tuberculosis of the bladder which are recorded in the records of the Johns Hopkins Hospital. He says that he has not seen in his own practice, nor has there been in the surgical wards of the Johns Hopkins Hospital a single instance of complete recovery from bladder tuberculosis. The paper is very complete and has appended to it an eight-page bibliography which will prove of great value to other workers in this field.

The Laryngoscope, St. Louis.

March.

81 Etiology of Inflammatory Diseases of the Nose and Accessory Sinuses. W. L. Ballenger, Chicago.
82 Pathogenic Conditions of the Nasopharynx in the Adult. E. Pynchon, Chicago.
83 Extensive Cholesterin Infiltration of the Mastoid Cells. E. B. Dench, New York.
84 *Sarcoma of Tonsil Treated with Coley's Toxins. F. P. Emerson, Boston.
85 Choice of Anesthetics in Nose and Throat Surgery. S. J. Goodman, Columbus, Ohio.
86 Turbinectomy. E. Morgweck and G. C. Hall, Louisville.
87 Papilloma of Larynx in a Child. J. C. Beck, Chicago.
88 Tuberculous Ulceration of the Tongue. J. T. Campbell, Chicago.
89 New Instruments. L. Ostrom, Rock Island, Ill.
90 New Nasal Instruments. J. H. Abraham, New York.
91 A New Tonsillotome. F. C. Ruppert, New York.
92 New Self-Retaining Septal Speculum. S. Goldstein, New York City.

84. **Sarcoma of Tonsil.**—Emerson reports a case of spindle-celled sarcoma of the tonsil occurring in a woman 64 years of age, in which the mixed toxins of *Bacillus prodigiosus* and *Streptococcus erysipelatus* were employed with some success. The growth disappeared entirely, the patient regained good health, but died seventeen months after treatment was begun from a recurrence of the tumor.

Ohio State Medical Journal, Columbus.

April 15.

93 *Early Diagnosis of Gastric Carcinoma. W. G. Thompson, New York.
94 Puerperal Eclampsia. L. A. Yocum, Wooster.
95 *Calomel. J. H. Ray, Coalton.
96 Technic for Location of Foreign Bodies in the Eye. C. F. Bowen, Columbus.
97 President's Address Delivered Before the Academy of Medicine of Toledo and Lucas County. H. E. Smead, Toledo.
98 Progress of Neurologic Medicine. C. J. Aldrich, Cleveland.

93. **Early Diagnosis of Gastric Carcinoma.**—In this paper Thompson sets forth at length the means that may be employed to make an early diagnosis of carcinoma of the stomach, and he discusses briefly the conditions which combine to make operation not only justifiable but desirable.

95. **Calomel.**—In all cases of acute infectious disease Ray gives one grain of calomel and soda every hour for twenty-four hours, or longer, if needed. Children from 1 to 5 years of age are given from one-fourth to one-half grain. He claims excellent results from this dosage and method of administration.

96.—See abstract in THE JOURNAL, Sept. 16, 1906, page 889.

American Journal of Medical Sciences, Philadelphia.

April.

99 *The Medical Staff and Its Functions. S. S. Goldwater, New York.
100 *Abnormal Involution of the Mammary Gland. J. C. Warren, Boston.
101 *Surgical Aspects of Gastric Carcinoma. J. B. Deaver, Philadelphia.
102 *Hydrocephalus Complicating Epidemic Cerebrospinal Meningitis. H. Koplik, New York.
103 *Cardiovascular Regulation During and After Operation. H. W. Cook, Minneapolis, Minn.
104 *Clinical Studies of the Cerebrospinal Fluid. F. P. Rous, Baltimore.
105 Tropical Neurasthenia and Its Relation to Tropical Acclimation. L. H. Fales, Madison, Wis.
106 Experimental Arterial Degeneration. J. L. Miller, Chicago.
107 *Congenital Anomalies of the Hands and Feet. C. A. McWilliams, New York.
108 Standards and Work of the Philadelphia Pediatric Society's Milk Commission. S. McC. Hamill, Philadelphia.

99. **Medical Staff.**—This paper was discussed editorially in THE JOURNAL, April 13, 1907, page 1273.

100. **Abnormal Involution of Mammary Gland.**—Warren calls attention to the more or less active epithelial processes which are going on in nearly half of the cases of abnormal involution. He reports six cases, in three of which the involution was associated with cancer. One case was accompanied by cyst formation and a little epithelial change; in another there was acinal hyperplasia and some epithelial proliferation, and in the remaining case there was marked epithelial hyperplasia. Warren urges that it is important that a careful examination be made of both breasts because in a series of 41 consecutive cases both breasts were involved in nearly 22 per cent. Warren's plastic resection of the mammary gland, which he has described before, is considered by the author to be the ideal operation in these cases.

101.—See abstract in THE JOURNAL, Jan. 26, 1907, page 351.

102. **Hydrocephalus Complicating Epidemic Cerebrospinal Meningitis.**—Koplik reports seven cases of this kind and discusses fully the symptoms and diagnosis. He says that it seems to him that such cases definitely fix the indication for the performance of lumbar puncture in cerebrospinal meningitis of the acute type. In those cases in which an early diagnosis detected threatened hydrocephalus, in the second or third week of the disease, a single lumbar puncture was sufficient in some instances not only to relieve the symptoms, caused by increasing fluid in the ventricles, but to arrest the progress of the disease at a critical moment by the removal of the excess of toxins or bacteria from the interior of the

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cranial cavity. Koplik resorts to lumbar puncture only when he is convinced that there is an accumulation of fluid in the ventricles.

103.—This article also appeared in the *Northwestern Lancet*, April 15, 1907.

104. **Clinical Study of Cerebrospinal Fluid.**—Rous made a very careful study of the cerebrospinal fluid, with special reference to pressure in the subarachnoid cavity, the protein contents of the fluid and the number and character of cells per cubic millimeter. He says that except along the broadest lines there is nothing specific in the permutations of protein, pressure in cells; but along these lines, the fluid from cases of tuberculous meningitis is characteristic as compared with that from cases of paresis or of cerebrospinal syphilis, while these also differ from the normal fluid. He says that if a case be suspected to be one of tuberculous meningitis, but the fluid prove to be normal as regards pressure, protein and cells, the disease may be ruled out. The methods employed by Rous are described in full.

107. **Congenital Anomalies of Hands and Feet.**—McWilliams reports six cases. Some of the anomalies noted were web fingers, supernumerary digits and thumbs, absence of forearm and fingers and clubbing of the fingers and toes.

California State Journal of Medicine, San Francisco.

April.

109 Opsonins. L. Porter, San Francisco.
110 Opsonic Technic. L. S. Mace, San Francisco.
111 *The Nauheim Treatment of Acute and Chronic Heart Failure. P. K. Brown, San Francisco.
112 Alcohol: The Effect of Its Use and Abuse. (To be continued.) A. W. Holsholt, Stockton, Cal.

111. **Nauheim Treatment of Heart Disease.**—Brown believes that the Nauheim bath, properly given, with resisted movements, has a distinct place in the treatment of acute and chronic heart failure. He reports ten cases in point. He says that it is of advantage to simplify the treatment, and for this reason it is best given in the patient's home when conditions are favorable.

American Journal of Surgery, New York.

April.

113 Study of One Thousand Cases of Ectopic Pregnancy Reported in the Literature During the Past Ten Years. O. M. Stefenson, Chicago.
114 Stomach Diseases, Reflex and Organic. M. A. Austin, Anderson, Ind.
115 Blood Examination in Surgical Diagnosis. I. S. Wile, New York.
116 Ambulatory Treatment of Epididymo-Orchitis. H. Crouse, El Paso, Texas.
117 Surgical Postures. M. W. Ware, New York.
118 Indications for Submucous Resection of the Nasal Septum. W. W. Carter, New York.
119 Importance of Examination of the Rectum. T. B. Breck, Cleveland, Ohio.
120 *Improved Method of Performing Phlebotomy. L. Jacobs, New York.

120. **Improved Method of Performing Phlebotomy.**—The instrument employed by Jacobs is an aspirating needle, two inches long, and of a caliber of one-sixteenth of an inch. To this is attached a piece of rubber tubing from four to six inches long, at the end of which is attached a small glass canula. The latter is a slight refinement. After the application of a tourniquet to the arm a vein is selected, preferably at the anterior aspect of the elbow. The needle is then introduced through the superficial tissues into the lumen of the vein in a reverse direction to that of the blood current. This is immediately followed by a flow of blood. A sterile flask can be used for its collection. A fairly firm compression bandage is then applied over the site of the puncture. The entire procedure requires about five minutes. The advantages claimed for this method are: 1. No incision is necessary. 2. The procedure is clean, easy and effectual. 3. The amount of blood withdrawn can be measured exactly. 4. The blood is sterile and can be used for cultural purposes.

American Journal of Obstetrics, New York.

April.

121 Shall the Operative Treatment of Gonococcal Salpingo-oöphoritis be Conservative or Radical? H. J. Boldt, New York.
122 Pathologic Changes Caused by the Gonococcus. B. M. Anspach, Philadelphia.
123 Gonorrhea in Pregnancy and the Puerperal State. E. P. Davis, Philadelphia.
124 The Protection of the Innocent. H. A. Kelly, Baltimore.
125 Restoration of Function in the Innocent. G. E. Shoemaker, Philadelphia.
126 Blood Pressure During Pregnancy and the Puerperium. W. J. Vogeler, New York.
127 *Blunt Dissection with Scissors in Plastic Gynecologic Operations. T. J. Watkins, Chicago.
128 Regulation of Midwives in New York. J. M. Mabbott, New York.
129 Traumatism as an Etiologic Factor in Gynecology. C. S. White, Washington, D. C.
130 Treatment of Pernicious Vomiting of Pregnancy. R. C. Norris, Philadelphia.
131 Prolonged Pregnancy. L. M. Allen, Baltimore.

127.—See abstract in THE JOURNAL, Dec. 1, 1906, page 1850.

New York State Journal of Medicine, Brooklyn.

April.

132 *President's Address of the Medical Society of the State of New York. J. D. Bryant, New York.
133 *Practical Legislation for the Prevention of Blindness from Ophthalmia Neonatorum. F. P. Lewis, Buffalo.
134 *Plea for New Methods for the Prevention of Blindness. L. Howe, Buffalo.
135 *Symptoms and Diagnosis in the Staphylococcus and Streptococcus Joint Infections. L. W. Hotchkiss, New York.
136 *Symptomatology and Diagnosis of the Rheumatoid Diseases. R. R. Fitch, Rochester, N. Y.
137 *Mechanical Treatment of Non-Tuberculous Joint Infections. H. L. Taylor, New York.
138 *Operative Treatment of Non-Tuberculous Joints. W. Wood, Brooklyn.
139 Influenza in Children. H. Heiman, New York.
140 Medical Charities of Manhattan and the Bronx. (Continued.) F. L. Lattimore, Philadelphia.
141 History of the Medical Society of the State of New York. (Continued.) J. J. Walsh, New York.

132.—See abstract in THE JOURNAL, Feb. 16, 1907, page 631.

133-134.—See abstracts in THE JOURNAL, Feb. 9, 1907, page 536.

135.—See abstract in THE JOURNAL, Feb. 23, 1907, page 721.

136, 137, 138.—See abstracts in THE JOURNAL, Feb. 16, 1907, page 630.

Indiana Medical Journal, Indianapolis.

February.

142 Endometritis. M. Thorner, Indianapolis.
143 Immediate Treatment by the General Practitioner of Injuries of the Eye. F. A. Morrison, Purdue.
144 *Some Causes of Inefficiency in Medical Practice. J. B. Roberts, Philadelphia.
145 Aneurism of the Innominate, with Autopsy. D. M. Green, Muncie.

144.—See abstract in THE JOURNAL, Oct. 13, 1906, page 1220.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 20.

1 Effects of Respiration on the Circulation. J. Barr.
2 *The Pulsus Bisferiens. T. Lewis.
3 *Calcium Salts in the Blood and Tissues. W. B. Bell.
4 *Etiology and Pathology of Peptic Ulcer. F. B. Turck, Chicago, Ill.
5 Case of Repeated Abdominal Section for Perforation of Gastric Ulcers. W. M. Willis.
6 *Case of Cellulitis. G. H. Makins.
7 Dislocated Spleen with Torsion of Pedicle Complicating Pregnancy. H. Meek.
8 *Haffkine's Antiplague Vaccine. T. C. Lucas.
9 *Case of Chloroma. T. H. Butler.
10 Albumosuria and the Duration of Albuminuria in Cholera. U. N. Brahmachari.
11 Case of Double Bezold's Disease. C. J. Heath.

2. **Pulsus Bisferiens.**—Lewis refers to a number of cases in which this form of pulse was observed. He says that there appears to be only one constant relationship with the pulsus bisferiens, and that is a greatly dilated and hypertrophied left ventricle. There appear to be two types, the one associated and the other unassociated with arteriosclerosis.

3. **Calcium Salts in Blood and Tissues.**—Bell believes that the calcium salts exert a special influence on the female genital functions, and in this connection he refers to the fact that the oviducts of birds secrete calcium salts. Again, during lactation, when the mother is giving to her infant large quantities of lime salts in her milk, the menstrual function is normally in abeyance. Some of his observations seemed to show that pregnancy is terminated when the fetus ceases to absorb or to receive calcium salts from the mother's blood, and a large accumulation occurs in her system, bringing about contraction of the uterine muscles. Finally, late in life, when no calcium salts are required for the building-up processes, or for those of reproduction, these salts accumulate in the tissues,

especially in the vessels, atrophy occurs and the individual declines. Bell is carrying on his work in this direction and promises to publish a more detailed report later.

4. **Peptic Ulcer.**—Turck says that there seems to be some toxic condition produced, which overcomes natural resistance, resulting in cytolysis and possibly some chemical substance formed within the alimentary tract, which, when absorbed, may neutralize the protective bodies in the blood and tissues, resulting in autocytolysis. Turck succeeded in producing ulcer of the stomach and duodenum in dogs by feeding the colon bacillus for a variable length of time. In another series of experiments, the feeding of the colon bacillus was stopped after one or two months; the dogs were kept under good hygienic conditions on ordinary food for another month and were then killed. Ulcers were found in the stomachs of these dogs in various stages of healing, showing that the problems involved in the two series of experiments are fundamental and far reaching. Turck thinks that they enter into the question of the etiology not only of peptic ulcers but of many diseases. In the first series of experiments, reported on previously, there was no evidence of healing; in fact, the ulcers caused the death of the animal either by perforation or by hemorrhage. Careful data were kept of all of these experiments, and they are reported on in full in this paper. Turck found that healing proceeds about as follows: Round-cell infiltration, the formation of bands of connective tissue until finally only a very narrow scar remains.

6. **Cellulitis.**—Makins reports a case of cellulitis, which he regards as an example of a rare infection, possessing distinctly characteristic features. It followed infection by an organism set free by the wounding of an old blind diverticulum of the large intestine. It was first assumed to be an ordinary infection by the colon bacillus until the entire absence of gas formation was noted. The organism seemed to be of the same nature as certain organisms cultivated from feces by Houston. Prominent features of the cellulitis were the remarkable dark red marbling of the skin, unaccompanied by any gaseous emphysema, the extensive venous thrombosis, the steady progress of the infection in a contrary direction to that of the lymph stream, the strict limitation of the process to the subcutaneous tissue, the widespread sloughing of the connective tissue infected, and, lastly, the strong similarity of the discharge in odor, color and consistence to liquid feces.

8. **Haffkine's Antiplague Vaccine.**—Lucas adds his testimony to that already given in support of the very great value of this method in reducing not only the incidence, but also the mortality of the disease.

9. **Chloroma.**—Butler reports a case occurring in a girl, 11 years of age, who died in about seven weeks. There was considerable exophthalmos, due chiefly to vascular engorgement and to thrombosis of the cavernous sinus. It was absent after a severe hemorrhage and after death.

The Lancet, London.

April 20.

12 *The Lymphatic System of the Stomach. J. K. Jamieson and J. F. Dobson.
13 *Suicide and Sanity. T. C. Shaw.
14 *Early Diagnosis of Tuberculosis. J. Hay.
15 *Immediate and Ultimate Results of Sanatorium Treatment of Tuberculosis. N. D. Bardswell.
16 *Ligatures and Buried Sutures with Special Reference to Catgut. A. E. Johnson.
17 Indications for Treatment of Cholera. N. H. Choksy.
18 *Case of Pressure on Trachea. F. deH. Hall.
19 Successful Treatment of Tuberculosis and Leprosy. S. F. Wernich.
20 Fracture of the Base of the Fifth Metatarsal Bone. H. Burrows.
21 *Case of Scopolamin Poisoning. A. W. Moore.

12. **Lymphatic System of Stomach.**—Jamieson and Dobson record the results of their study of 30 stomachs, injected according to the method employed by Gerota.

13. **Suicide and Sanity.**—Shaw inclines to the belief that the true suicide is oftener than is supposed a sane man. He says that if a man, in his own personality, destroys himself he is a genuine suicide, but if, through disease, he has his personality altered and a self-destructive act ensues, it is clearly the act of another person. Shaw says that the instinct of health is conservative, but subject to the deliberate will which may extinguish or invert it, while the instinct of disease is destructive.

14. **Early Diagnosis of Tuberculosis.**—Hay deals with the question more especially as it is met with in an out-patient department.

15. **Sanatorium Treatment of Tuberculosis.**—Of 277 patients treated by Bardswell at the King Edward Sanatorium at Midhurst, only 29 failed to obtain any benefit at all; 78 were discharged, apparently cured. Of these 78, no less than 66 were early cases. The results of the treatment of patients with somewhat extensive disease of fairly recent origin were less satisfactory. Only 10 out of 97 had their disease completely arrested; 50 were discharged with the general health completely restored and the disease considerably arrested; 37 were not sufficiently improved to warrant expectations of their ever recovering completely from the disease. Of 66 cases of chronic progressive disease of long standing, only one patient was discharged, with the disease completely arrested; 16 patients were discharged with a fair prognosis, the disease being considerably arrested and general health fully restored. The remaining 49 patients left with a decidedly unfavorable prognosis. These 277 patients were seen during a period of six years. Of this number, 17 died in the sanatorium. Of the 260 patients discharged, 97 are in their normal health at the present time, 50 are in either fair or poor health, 103 have died, and 10 have been lost sigat of.

16. **Ligatures and Sutures.**—According to Johnson, the only absolutely safe method of sterilizing ligatures and sutures is to keep the material hermetically sealed in glass tubes until required for use. It is his custom to seal up animal ligatures in tubes, containing xylol or a mixture of xylol and absolute alcohol, and then heat the tubes in water at a temperature of 212 F. for from half an hour to an hour. Johnson has never succeeded in obtaining a culture from the specimens of catgut so prepared.

18. **Pressure on the Trachea.**—Hall reports a case of compression of the trachea at its bifurcation by a mass of enlarged glands. An interesting feature in the case was the suddenness with which the symptoms of compression developed.

21. **Scopolamin Poisoning.**—Following the instillation into both eyes of a 1 per cent. solution of scopolamin, Moore's patient, a girl, aged 4½ years, became hysterical and then delirious, presenting all the symptoms of scopolamin poisoning. The child did not recover completely until after two days.

Medical Press and Circular, London.

March 27.

22 Tropical Sanitation. R. Ross.
23 *Cancer of the Ovary. F. B. Jessett.
24 Primary Carcinoma of the Vagina. H. Macnaughton-Jones.
25 *Treatment of Inveterate Cases of Ménière's Complex of Symptoms by Hypnotic Suggestion. T. W. Parry.
26 Case of Sarcoma of the Parovarium. W. D. Spanton.
27 Case of Large Myoma, with Sarcomatous Outgrowth; Abdominal Hysterectomy. W. D. Spanton.

April 3.

28 *Arthritis. F. J. Poynton.
29 Rearing of Children. G. Carpenter.
30 Tuberculosis. E. J. McWeeney.
31 *Three Cases of Publotomy. M. J. Gibson.

April 10.

32 Acroparesthesia. A. J. Whiting.
33 *Treatment of Tuberculosis by Marine Climates. W. Ewart.
34 An Improved Gag. J. W. Cousins.
35 *Case of Chronic Pancreatitis. W. I. de C. Wheeler.

April 17.

36 Study of Diseases Peculiar to Children. L. H. Ormsby.
37 Non-operative Treatment of Malignant Disease. W. A. Potts.
38 Operative Treatment of Traumatic Psychoses. B. Hollander.
39 Medical Treatment of Gastric Ulcer. S. A. Arany.
40 Two Cases of Missed Abortion. J. Dunlop.

23. **Cancer of Ovary.**—Jessett reports a case of alveolar carcinoma of the ovary, involving the sigmoid flexure.

25. **Ménière's Disease.**—Parry says that the use of hypnotic suggestion in the treatment of Ménière's disease can not be overestimated. He refers to a man who has been under this treatment for two years, with most amazing results. The symptoms have all been very much alleviated in severity, and the patient's general health is good.

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28. Arthritis.—Poynton discusses arthritis as a manifestation of diseased states and not as in itself a disease.

31. Pubiotomy.—Gibson reports three cases of pubiotomy, which terminated satisfactorily. Cesarean section was proposed, but rejected.

33. Treatment of Tuberculosis by Marine Climates.—Ewart says that the mere airing and salting are not sufficient of themselves to cure pulmonary tuberculosis, but declares that the seaside is par excellence the place for the prevention sanatorium.

35. Chronic Pancreatitis.—In the case reported by Wheeler in a man, aged 35, the disease had been of seven years' duration. The head of the pancreas is hard and nodular and somewhat enlarged. The man is at present working as a laborer and is free from all pain, but at times he notices that his stools become light in color.

Clinical Journal, London.

March 27.

41 Utility of the Sphygmomanometer. H. B. Shaw.
42 Causation and Treatment of Rectal Hemorrhage. P. L. Mummery.

April 3.

43 Difficulties in Gynecologic Diagnosis. A. E. Giles.
44 *Empyema in Children. T. R. C. Whipham.
45 Affections of the Pancreas. S. Phillips, A. W. M. Robson and P. J. Cammidge.
46 Diseases of the Gall Bladder and Ducts. A. W. M. Robson.

April 10.

47 Points in Rectal Surgery. H. Cripps.
48 *Treatment of Acute Appendicitis. B. G. A. Moynihan.
49 Case of Hematuria Due to Bilharsia Hematobia. H. Curtis.

April 17.

50 Doubtful Case of Cerebral Tumor. W. H. White.
51 Surgery of New Growths of the Prostate Gland. J. Pardoe.

44. Empyema in Children.—Whipham favors the resection of part of the rib, in the case of young children, in such a position as will ensure the most efficient drainage. In older children, simple incision may prove sufficient. In order to favor expansion of the lung, he allows the child to be up and walking about as soon as circumstances will allow it. He does not recommend irrigation of the pleura.

48. Treatment of Acute Appendicitis.—Moynihan summarizes his views in the matter as follows: (1) In acute appendicitis the safest treatment is immediate operation, if the diagnosis can be made with accuracy in the first few hours, at a time when the appendix alone is affected. (2) If the diagnosis is not made until some hours—twenty-four or more—have elapsed, then treatment should consist in complete abstinence from food, constant cleansing of the mouth, occasional administration of saline injections, and, above all, the avoidance of aperients. (3) If acute peritonitis develops, it can be traced, in a great majority of cases, to the administration of an aperient. (4) When general peritonitis has developed, or is developing, the treatment on the principles enunciated by Murphy is attended by a success far in advance of any achieved by other methods.

Obstétrique, Paris.

Last indexed XLV, page 1366.

52 (X, No. 6, pp. 481-592.) *Results of Too Much Fat in Human Milk. (Excès de beurre.) P. Planchon.
53 Mechanism of Childbirth. (Accouchement.) L. Gigli.
54 Proposed Modification of Law to Protect Child-Life. (Loi Rousset.) P. Budin.
55 (XI, No. 1, pp. 1-96.) Hygiene of Infancy. (Allaitement, etc., du nourrisson.) P. Budin.
56 *Edema of Cellular Tissue Around the Cervix in Pathologic Childbirth. (Suites de couches pathologiques.) Coudert.
57 *Extraction of Detached Head. (Extraction de la tête isolée et retenue dans l'utérus.) Trillat and Latarjet.
58 Superfetation. (Superfoetation et ses causes d'erreurs.) L. Bouchacourt.
59 (No. 2, pp. 97-192.) *Serious Hemorrhages in the New-Born. (Hem. graves du nouveau-né.) P. Lequeux.
60 *Importance of Determination of Hemoglobin Percentage in Obstetrics. (Hemoglobinométrie.) L. Devraigne.
61 (No. 3, pp. 193-288.) Podalic Version by Internal Maneuvers with Shoulder Presentation. (Version pod.) L. A. Demelin.
62 Embryotomy on the Living Child. (Embryotomie.) P. Budin.
63 (No. 4, pp. 289-384.) Obstetrical Polyclinics in Germany. (Policliniques obstétricales.) V. Neujean.
64 (No. 5, pp. 385-480.) *Surgical Treatment of Diffuse Puerperal Peritonitis. (Périt. puerp. généralisées.) C. Jeannin. Commenced in No. 3.
65 (No. 6, pp. 481-576.) Facial Paralyses of the New-Born. (Paralysies faciales du nouveau-né.) L. Demelin and P. Guénlot.
66 Purulent Rhinitis in the New-Born, with Greenish-yellow Discharge. (Rhinite pur. à écoulement citrin.) C. Jeannin.
67 (XII, No. 1, pp. 1-96.) Experimental Demonstration of Absorbing Power of Vaginal Mucosa After Delivery. (Pouvoir absorbant de la muqueuse vag.) J. Pery.
68 *Importance of Blood-Agar Cultivation of Streptococci in Puerperal Infection. (Strept. pyog. et inf. puerp.) C. Gonnet.

52. Excess of Fat in Human Milk.—Planchon describes thirteen cases in which the healthy children of healthy working women became affected with diarrhea, vomiting and eczema of unknown cause. In each instance the milk was found to contain an excess of fat, proving too rich for the children.

56. Inflammatory Edema of the Pericervical Cellular Tissue.—In the two cases reported by Coudert the acute inflammatory edema of the pericervical tissue subsided spontaneously in the course of from 10 to 20 days. The tumefaction in the vaginal recesses resembled that observed when the cheek swells on account of a carious tooth, swelling enormously and then completely subsiding, without leaving a trace. Treatment should include absolute bed rest, with hot vaginal injections, made very slowly and cautiously to avoid the slightest traumatism. Ice may be applied to the abdomen, and morphin may be necessary in case of much painfulness, with possibly hot rectal injections. The physician should scrupulously refrain from any direct intervention on the uterus or adnexa.

57. Extraction of the Detached Head Retained in the Uterus.—Trillat and Latarjet review the various methods of treatment and the indications for this condition, which, they say, the modern accoucheur rarely has occasion to see. In case of severe hemorrhage, they advise the extraction of the placenta before paying attention to the head. In the four cases of fatal hemorrhage on record under these circumstances, the only patient saved had been treated by this technic.

59. Serious Hemorrhages in the New-born.—Impressed by the frequency and severity of hemorrhages in new-born infants, Lequeux has been investigating the reasons for this circumstance, aside from mechanical causes. A hemorrhagic tendency during the first two weeks of life is more frequent than is generally accepted. In 2,162 maternity cases at the Saint-Antoine Hospital during 1905, 41 of the infants presented this hemorrhagic tendency, but without external manifestations in 16. The hemorrhagic tendency was observed in over 52 per cent. of the infants dying soon after birth. Of the total 41, only 15 were girls. Infection seems to be at the bottom of the hemorrhagic tendency, either the streptococcus, staphylococcus or colon bacillus being generally found in such cases. In one instance alone syphilis seemed to be the exclusive causal agent. Most frequently the infection is of postpartum origin; epidemics of this hemorrhagic tendency have been observed. The liver is the organ most frequently and severely affected, and next the spleen. The infection of these organs explains the polycythemia and leucocytosis observed, but the liver is responsible for the leucocytolysis and the vasomotor disturbances. It is interesting to note, Lequeux adds, that it is to an excess in the defensive measures on the part of these organs that the hemorrhagic tendency is due, the congestion, leucocytosis and diapedesis observed occurring in such excessive measure that they create the hemorrhagic syndrome. The latter can thus be regarded as the ultimate manifestation of the resistance of the infantile organism to toxi-infections.

60. Value of Estimation of Hemoglobin in Obstetrics.—Devraigne urges the importance of knowledge of the proportion of hemoglobin in the blood as an aid for prognosis in maternity cases, especially when there has been more or less hemorrhage before the patient is seen. He gives the findings in a number of cases to show how easy it is to tell from the tint of the blood in the hemoglobinometer the vital capacity of the blood. In two cases of hydatidiform moles the percentage of hemoglobin was 60 in one and varied from 31 to 50 in the other. In one case of tubal pregnancy the hemoglobin was only 40, confirming the diagnosis of internal hemorrhage. In cases with repeated small hemorrhages the hemoglobin was only 30, 55, or thereabouts. The blood recuperated exceptionally slowly in cases of low hemoglobin percentage resulting from abortion. He suggests that when the hemoglobin is below 35, owing to

repeated hemorrhages in early pregnancy, it might be wise to induce abortion in order to forestall the serious and prolonged anemia that follows spontaneous abortion. The measure is indicated all the more as spontaneous abortion is almost inevitable in case of such vital depression as is indicated by the low hemoglobin percentage.

64. **Surgical Treatment of Diffuse Puerperal Peritonitis.**—Jeannin's long article reviews the principal works published on this subject since Guillemeau's suggestion of operative treatment in 1643. He has collected from the literature 118 cases of generalized puerperal peritonitis in which surgical intervention was attempted, and adds three unpublished cases from his own experience. A summary of each case is given in tabulated form, the tables filling about 18 pages. The proportion of recoveries was 49.5 per cent. In sixty-three cases in which the peritonitis was in an acute form the proportion of recoveries was 41.2 per cent. The outcome was better the later the date after delivery when the peritonitis first manifested itself. Comparison of the different modes of surgical intervention shows that the clinical results harmonize with the theoretical assumptions in regard to the superior advantages of celiotomy by multiple routes, but without removal of any of the genital organs, as the preferable method for treatment of acute generalized puerperal peritonitis. The mortality with median laparotomy was 37 in 70 operations; with laparotomy with multiple incisions, 2 in 7; with laparotomy and colpotomy, 1 in 5; with posterior colpotomy, 4 in 7, while abdominal hysterectomy showed 12 deaths in 18 cases, and vaginal hysterectomy, 3 deaths in 4 cases. He advocates lowering the pelvis to permit free drainage after the operation, and the use of an abundance of physiologic salt solution. There should be no delay, he affirms, in operating after the peritonitis is diagnosed. The usual signs of acute peritonitis may be lacking or disguised, and in case the symptoms of peritonitis persist after curetting the uterus, an exploratory incision should be made, with continuous irrigation, and application of ice to the abdomen. The most important differentiating signs of puerperal peritonitis are the unfluctuating rapidity of the pulse, which is small, with a lack of proportion between the number of pulsations and the temperature, especially in case of hypothermia; the acceleration of the rhythm of respiration; the change in the general condition, too marked to be explained by any of the symptoms observed, and, lastly, the history of the case—peritonitis occurring with special frequency as a sequel of induced abortion or perforation of the uterus. If peritonitis really exists the patient is doomed, he states, unless laparotomy is done. In case general anesthesia is contraindicated, subcutaneous injection of cocain may be sufficient for the operation. The first incision, he says, should be made on the linea alba, below the umbilicus, and should be from 5 to 8 cm. long. The surgeon must bear in mind that the recent pregnancy has possibly made the abdominal walls very thin, and the intestine may be adherent. He advises three other incisions, one in the pouch of Douglas and two in the flanks. An assistant pushes a clamp into the floor of the pouch of Douglas, lifting it up, and the surgeon makes an incision from above, cutting down to the clamp, in the tissues stretched between the slightly opened blades of the instrument. He then passes a large drain down to the clamp, which seizes it and draws the end out through the vagina. The incision in the flanks should be on a prolongation of the axillary line. Each incision should be about 5 cm. long. By quick work the anesthetic is required only for a few minutes. In case the peritonitis is generalized, he irrigates with from 10 to 15 liters of salt solution at 40 C. (104 F.) until the fluid comes away clear, but if there is any doubt as to the generalization of the peritonitis it is better to abstain from irrigation. Drains should be left in the various incisions, and the patient placed in bed with the chest higher than the pelvis. During the operation a liter of salt solution should be injected subcutaneously, possibly with the addition of 1 mg. of strychnin to the liter. The dressings are changed every twelve hours. Nothing should be given by the mouth during the rest of the day. The next day the intestines should be emptied with an injection of 500 gm. of olive oil, followed by irrigation with salt solution, the salt solution being given in this way and subcutaneously for several days. So long as the vomiting persists the patient should not eat or drink anything, but the patient may be allowed to suck small pieces of ice. When the gastric intolerance has subsided, milk diluted with water or bouillon can be given in small quantities at a time. A tendency to collapse should be combated with injections of ether and caffein, and, possibly, intravenous injection of normal salt solution.

68. **Pyogenic Streptococcus and Puerperal Infection.**—Gonnet advocates the use of blood-agar culture media as a means of differentiating pyogenic streptococci in the lochia and blood. Examination of 100 pregnant women near term in his service never revealed pyogenic streptococci in the vagina. In 16 the *Streptococcus gracilis* was found but it vanished during delivery and caused no symptoms at any time. Blood-agar cultures were made of the lochia of all the patients after delivery, and when pyogenic streptococci were found the patient was isolated at once as a possible source of danger to others. In one case this occurred while the temperature was still normal, but serious puerperal infection with high temperature soon developed. It was thus diagnosed by the blood-agar before it had really manifested itself. Since these measures have been systematically adopted, the puerperal morbidity in the service has materially diminished. As soon as pyogenic streptococci are detected in the lochia, blood-agar cultures are made from the blood. In the 6 cases in which they were discovered in the blood, all the patients succumbed. A number of other patients presented exactly the same symptoms, but the blood was found constantly sterile. Most of these patients recovered, but two died with symptoms of severe intoxication, probably from the toxins of the streptococci. Benefit was derived from intrauterine injection of turpentine and subcutaneous injection of a physiologic salt solution to which turpentine had been added. The latter seems to have a marked prophylactic action, the streptococci not passing into the blood thereafter. Each tube of agar is heated to boiling point and then gradually cooled to 48 C. (118 F.), when about 2.5 c.c. of blood is added to each tube and the contents shaken and poured out on a Petri dish. The agar "sets" in about 15 minutes, and the dish is then placed in the autoclave at 37 C. In placing the dishes in the autoclave they are turned upside down, which prevents condensation of droplets of moisture on the surface. In from 12 to 14 hours the dishes are examined. If they are sterile they are of a uniform bright red when held up to the light. The blood can be smeared with a platinum loop on the surface of hardened agar. The presence of streptococci can thus be determined in 24 hours, and the number of the colonies and their mode of proliferation show the gravity of the infection. Gonnet gives several illustrations of the aspect of the streptococcus colonies on the blood-agar.

Semaine Médicale, Paris.

69 (XXVII, No. 14, pp. 157-168.) *How to Recognize and Cure Congenital Dislocation of the Hip. (Luxation cong. de la hanche.) Calot.

70 (No. 15, pp. 169-180.) Antidotes and Antagonists in Therapeutics and Toxicology. (Antidotisme et antagonisme.) M. Roche.

69. **Diagnosis and Cure of Congenital Luxation of the Hip.**—Calot thinks that the general practitioner can confidently attempt the cure of congenital hip dislocation when the child is under the age of 4. Older than this, special skill is necessary to correct the conditions. Usually the patient is a little girl who has always limped, but walking is not painful and palpation shows that the head of the femur is not in its normal place and is smaller than normal. The condition should be corrected at once like a simple traumatic dislocation, and the correction maintained with a plaster cast for five or six months, when a complete cure is generally realized. Between the ages of 8 and 10 reduction is still possible, but a much longer time is required for permanent restoration of approximately normal conditions, and after 10 the trouble may be regarded as incurable. He shows in sixteen illustrations the technic of preparation of the parts for reduction by stretching the retracted tissues around the joint and the adductors, then reducing the head to its proper place and holding the thigh in a cast compelling 70 degrees of flexion, 70 of abduction and

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70 of apparent external rotation. The leg is bent on the thigh at an angle of about 100 degrees. The plaster cast reaches from the umbilicus to the toes. The child wears this cast for two months and a half, and is not allowed to attempt to walk, but is kept out of doors all day. This cast is then replaced with another which holds the limb in inward rotation of 60 degrees, abduction of 40 degrees and flexion of 40 degrees. The patella in the first cast faced the patient's head, but in the second cast faces the inner side of the other leg. This cast is also worn for two months and a half, after which the child is left entirely free, although kept reclining for two weeks longer, with daily massage of the limb, but no direct mobilization of the joints. Then the child is allowed to stand, holding by the back of a chair, for five minutes every hour. A week later the first attempts at walking are made, assisted by a person on each side or with canes, the attempts being repeated for five minutes each hour. After a month or so of these exercises the child soon learns to walk readily, especially if assisted by massage, baths and systematic training in walking. By the end of the year Calot states that all traces of the former limping will have disappeared. The earlier the treatment is commenced the better. Some of the best results were attained with children between 12 and 24 months. Calot has long been in charge of the children's seaside sanatorium at Berck.

Deutsche medizinische Wochenschrift, Berlin and Leipsic.

71 (XXXIII, No. 13, pp. 489-536.) XXV Anniversary of Discovery of Tubercle Bacillus. (Entdeckung des Tub.-Bac.) F. Loeffler.
72 Present Status of Experimental Cancer Research. (Krebsforschung.) A. Dietrich.
73 *Pneumonia After Traumatism. (Kontusionspneumonie.) M. Litten.
74 *Pseudoleukemia with Periodical Fever. (Pseudoleuk.) N. J. Tschlatowitsch.
75 *Treatment of Mediastinal Tumors with Roentgen Rays. (Weitere Beiträge, etc.) J. v. Eiselsberg and K. Engel.
76 Cosmetic Operations on the Nose. (Kosm. Nasenop.) Gerber.
77 *Ear Affections and Life Insurance. (Ohrenerkrankungen.) M. Levy.
78 *Importance of Intermissions Between Classes for Physical Development of Children. (Verwertung der Schulpausen.) G. Muskat.
79 (No. 14, pp. 537-576.) Enteritis and Appendicitis. (Ent. und App.) E. Sonnenburg.
80 *Chronic Rheumatic Joint Affections. (Chron. Gelenkrheumatismus und Arthritis deformans.) A. Hoffa. Id. G. A. Wollenberg.
81 *Treatment of Tetanus. (Tetanus.) Tilmann.
82 *Modification of Bassini Radical Operation for Hernia. (Modif. der B. Rad.-Op. der Hernien.) T. Papaloannou.
83 *Prevention of Recurrences After Gallstone Operations. (Aetiologie der Rezidive und Pseudorez. nach Gallensteinop.) O. Ehrhardt.
84 Dosage of Suprarenin Injected into Spinal Canal. (Dosierung des in den Wirbelkanal gespritzten Suprarenins.) J. Biberfeld.
85 *Transmission of Syphilis to Dogs. (Gelungene Uebertragung der Syph. auf Hunde.) E. Hoffmann and W. Brüning.
86 Research on Hemolysis, Especially in Staphylococcus Affections. (Hämolytische Unt.) G. Arndt.
87 Fever with Carcinoma. (Fieber beim Carc.) F. Fromme.

73. **Pneumonia from Traumatism.**—The form of traumatism to which Litten alludes is a contusion, without cutaneous lesion. The sudden and widespread compression induces such physical conditions that the resisting power of the lung is lowered. In case of an old process in the lung, the affection caused by the contusion may localize at this point. On the other hand, injuries may occur with extensive cutaneous suggillation, while the lung below may not have been injured. The interval after the accident before the pneumonia develops may range from 10 hours to 3, or possibly to 6 days; the average interval is 1 or 2 days. The traumatic shock is an important factor in the outcome. The patient may have been able to work in the interval between the accident and the pneumonia, but this does not disprove the connection between them. The symptoms are those of any pneumonia, although the sputum may be a little less tenacious than in ordinary pneumonia and may be unusually profuse, even from the first, in some cases. All but one of his 14 patients with contusion pneumonia recovered. Other observers have reported 4 deaths in 14; 3 in 5; 13 in 19 cases, and so on. If death occurs it is early in the disease. The pneumonia is sometimes accompanied by pleurisy without effusion, or may pass into chronic pneumonia or terminate in gangrene. In one of the 2 cases reported, a young, previously healthy man was helping another workman to lift a very heavy paving stone. Suddenly he let go, complaining of severe pain in his chest, and hemoptysis followed. Two days later typical pneumonia developed which terminated in fatal gangrene. In this case the authorities did not regard the pneumonia as dependent on the lifting of the stone, and indemnity was refused the heirs, but the final appeal was referred to von Leyden and Kraus and they cited a number of precedents and affirmed the probable connection between the pneumonia and the assumed injury of the lung from the exertion of lifting the weight. Litten thinks that there can not be the least doubt as to the connection between them. In lifting a heavy weight the person usually takes a deep inspiration and holds the glottis closed, so that the lung is distended to the maximum with air and is thus especially liable to tear readily. He says, further, that a chronic lung affection, which has never impaired the earning capacity, should not disqualify for an indemnity in case of contusion pneumonia. The indemnity is not paid for the special sickness, but only because the individual is incapacitated for work.

74. **Pseudoleukemia with Periodical Fever.**—The patient in the case reported was a woman of 38, extremely anemic, the blood findings suggesting pseudoleukemia, with periods of fever lasting for ten or fourteen days, with afebrile intervals of eight or twelve days. Others have reported similar cases, grouping them as pseudoleukemia or Hodgkin's disease. In the case reported, the favorable influence of iodid suggested a possible connection with syphilis, although no other signs of it could be detected. There was no perceptible enlargement of the lymph glands and the recovery was complete after seven months. An infectious origin seems evident from the history of the case. The attacks of fever were all alike, the temperature gradually rising, with a typhoid-like curve, reaching a maximum of 104 F., and then gradually subsiding to normal. The spleen became enlarged as the temperature rose and subsided again as it fell. During the fever the pulse was accelerated, reaching 100 and 120. General weakness, with loss of appetite and pain in the enlarged spleen were noted during the periods of fever, while the patient felt well except for weakness during the afebrile intervals. Quinin and arsenic did not display the slightest effect, but recovery was soon evident when the patient was given potassium iodid—5 gm. (75 grains) potassium iodid in 200 gm. (℥vi) of water: A tablespoonful twice a day. Iron and arsenic were given at the same time, and the result was striking. The fever vanished and the patient regained her strength and has had no recurrence during the year since. All the other cases in the literature ended in death.

75. **Roentgen Treatment of Tumors in Mediastinum.**—In the first of the two cases reported the patient recovered so completely under Roentgen treatment of the tumor diagnosed in the mediastinum that he considered himself cured and refused to continue the treatment further. About 250 minutes of exposures were given in this case. The other patient had about twenty exposures, although not entirely cured, and was exhibited at the local medical society to illustrate the benefits of Roentgen treatment of tumors in the mediastinum. Autopsy later in these cases revealed that the primary trouble had been a sarcoma in the mediastinum, but that this primary malignant growth had become completely transformed into cicatricial tissue. All the symptoms of the malignant disease subsided under Roentgen treatment. The first patient lived a year in apparently perfect health with no impairment of his earning capacity. In the second case the symptoms also subsided, but the interval before the metastases gave trouble was shorter. Torrey has related a similar case in which the sarcoma of the chest was found transformed into cicatricial tissue at the death of the patient later from typhoid. The experiences related also confirm Kienböck's statement that a vascular, rapidly growing sarcoma is the most readily influenced by the Roentgen rays of all forms of cancer. If the patients in the above cases had consented earlier to resume the Roentgen treatment on recurrence of symptoms, the results might have been better.

77. **Ear Affections in Regard to Life Insurance.**—Levy has collected from the literature 900 cases of chronic ear affections and tabulates the details from several standpoints. His

conclusions from this research and other experiences are that life insurance companies are not justified in excluding from insurance all persons with chronic ear affections, as they do in Germany. If the ear affection is shown by its clinical course to be a benign one, the life expectancy is scarcely affected by it, and candidates should be accepted, with an extra premium. The decision as to the benign character of the affection can be made only by a specialist.

78. **Exercise During the Intervals Between Classes.**—Muskat urges brief and frequent gymnastic exercises, between classes, not attempting many movements, but doing each exercise very carefully and with precision. He states that the medical school inspectors have reported that about half of all the school children suffer from curvature of the spine, not including the children who are merely round-shouldered.

80.—This paper is practically the same as that which appeared in THE JOURNAL, May 11, 1907, page 1586, by Hoffa and Wollenberg.

81. **Tetanus.**—Tilmann relates a case in which gangrene developed three days after a child had been kicked in the arm by a horse. The arm was amputated at once, but two days later tetanus developed and the child succumbed. He calls attention to the case to show that amputation, removing the focus, is not inevitably of benefit in case of tetanus. In this case the focus had been removed two days before the first symptoms of tetanus. The operation was done in a well-equipped operating room and infection with tetanus during the amputation is out of the question. In another case of tetanus described the knee had been run over and a large skin flap torn off. Symptoms of tetanus developed on the tenth day and 10 c.c. of tetanus antitoxin were injected into the spinal canal, and the same amount into the right sciatic nerve, with morphin and chloral every hour. The next day 12 c.c. of antitoxin were injected into the sciatic nerve on the left side, and the next day 20 c.c. into the right side. The patient soon recovered. Every suspicious wound at Tilmann's clinic is examined for tetanus bacilli; if found, antitoxin is injected at once.

82. **Modification of the Bassini Technic.**—The details of the technic are shown in several illustrations, as it has been applied in 89 cases in Papaioannou's service and in 21 elsewhere. Primary healing without infiltration or injury of the seminal cord or tendency to recurrence was the rule in every case, including one very large hernia reaching below the knees. The stump of the sac is fastened 2.5 cm. above the inner inguinal ring where the seminal cord emerges, and 4 safety sutures above and below produce a solid muscular wall holding back the stump of the sac. The rows of the sutures do not come above each other, but lap at least 2 cm.

83. **Recurrences After Gallstone Operations.**—Ehrhardt remarks that the principal causes of recurrence are generally supposed to be the overlooking of concrements, the development of adhesions and the continuance of hysteric disturbances. Infectious plugs of mucus in the biliary passages are liable to simulate true recurrence, but the main cause of recurrence of symptoms is to be sought in the glandular elements of the mucosa which are frequently of abnormal size and development, sometimes extending down to the peritoneal covering of the gall bladder. Inflammation may persist in one of these little recesses in the mucosa—which he calls Luschka's ducts—and possibly a minute concrement in one may be overlooked. They are to the gall bladder what an incipient diverticulum is to the intestine. The practical conclusions are that the best way to prevent recurrence is to remove the gall bladder entirely.

85. **Transmission of Syphilis to Dogs.**—Hoffmann and Brüning announce that inoculation of two dogs in the cornea with scraps from a human primary syphilitic lesion induced an affection presenting the characteristics of syphilis, even to the positive finding of the pale spirochete. Inoculation in the anterior chamber and also scarification of the cornea, in both rabbits and monkeys, induced a syphilitic keratitis. This confirms the fact that it is not necessary to inoculate the virus into a blood vessel, but that the lymph spaces offer favorable conditions for the proliferation of the spirochetes.

Münchener medizinische Wochenschrift.

88 (LIV, No. 10, pp. 449-504.) Diagnosis of Infantile Scorbutus. (Barlow'sche Krankheit.) W. v. Starck.
89 *Influence of Cholin and of Roentgen Rays on Course of Pregnancy. (Einfluss des Cholins, etc.) v. Hippel and H. Pagenstecher.
90 *Action of Roentgen Rays on Nephrectomized Animals. (Zur Frage des Leukotoxins.) J. Schmid and A. Géronne.
91 Strength of the Percussion Stroke. (Perkussionsschlag.) R. Geigel.
92 *Benzidin Test for Occult Bleeding in Urinary and Digestive Organs. (Benzidinprobe.) E. Schlesinger and F. Holst.
93 *Operative Treatment of Jacksonian Epilepsy. (Op. behandelter Fall von Jacksonscher Epilepsie.) S. Auerbach and E. Grossmann.
94 Enophthalmus. A. H. Pagenstecher.
95 *Silver Acetate in Prophylaxis of Ophthalmia Neonatorum. (Blennorrhoe der Neugeborenen.) Seefelder.
96 Treatment of Hammer Toes. (Hammerzehen.) Wende.
97 Experiences with Disinfection in East African Ports. (Desinfektion in ostafrik. Häfen.) Wagner.
98 (No. 11, pp. 505-552.) *Improved Technic of Electrophysiology. (Saiten-Elektrometer.) M. Cremer.
99 *Course of Urobilinuria in Typhoid Fever. (Urobilinurie.) J. Rubin.
100 *Cysticercus in Fourth Ventricle as Cause of Sudden Death. (Zystizerken im IV Vent.) M. Versé.
101 Microscopic Worms in Stomach of a Patient with Ozena. (Rhabditiden im Magen einer Ozänakranken.) O. Frese.
102 Systematic Treatment of Hay Fever. (Heuschnupfenbehandlung.) G. Avellis.
103 Deliveries Under Scopolamin-Morphin Semi-anesthesia. (Sk.-Morph. Halbnarkose.) O. Bass. Id. Hocheisen.
104 *Protection of Perineum. (Dammschutz.) E. Toff.
105 *Instrument for Obtaining Drop of Blood for Diagnostic Purposes: the Hemostix. (Hämostix.) M. Schottelius.
106 *Radiotherapy Applied within the Cancer (Intratumorale Bestrahlung als Fortschritt der Radiotherapie.) H. Strebel.
107 Knee-Elbow Posture to Aid Internal Version (Behandlung der verschleppten Querlage.) Langes.

89. **Influence of Cholin and Roentgen Rays on Course of Gestation.**—The rabbits in the experiments related were injected with cholin or exposed to the Roentgen rays, the results indicating that gestation was arrested and the embryo absorbed under their influence. See editorial in THE JOURNAL, May 4, page 1530.

90. **Influence of Roentgen Exposures on Nephrectomized Animals.**—The toxic effects of the exposures were greater in the nephrectomized animals. This suggests that a leucotoxin is formed under the action of the rays and that this leucotoxin is eliminated by the kidneys.

92. **Further Experience with the Benzidin Test for Invisible Hemorrhage.**—Examination of the stools from more than 150 patients and urine from 200 patients during the last few months has confirmed the reliability and the accuracy of the benzidin technic. It was described in these columns on page 1334 of the last volume. Admixture of blood from the food may obscure the findings in seeking for minimal hemorrhage in the digestive tract, but this error is not possible in examination of the urine. The test with urine is twenty times more sensitive than the Heller urine test and five times more than the guaiac and aloin test. The reliability and delicacy of the test render it very valuable for examining for blood in the urine and for hemoglobinuria. The urine must be treated first with glacial acetic acid and ether to prepare it for the test. From 0.5 to 1 c.c. of glacial acetic acid is added to 10 c.c. of the urine and lightly shaken. Then about a third of ether, by volume, is added and the whole is thoroughly shaken and set aside for a short time. The separation of the supernatant layer of ether is aided by addition of from 5 to 10 drops of alcohol and slight shaking. The limpid layer of ether is then taken up in a pipette and transferred to another reagent glass containing the benzidin reagent. The contents of the glass are shaken a little to distribute the ether extract through the reagent. In the presence of even traces of blood, the fluid turns green in a few seconds, or blue in case there is much blood present. The benzidin reagent is merely 0.5 c.c. of a freshly prepared mixture of benzidin and acetic acid and 2 or 3 c.c. of a 3 per cent. solution of hydrogen dioxid. The specimen of stool, the size of a pea, is suspended in about one-fifth of a reagent glass of water and boiled up briefly. A few drops of this suspension are added to the benzidin mixture; in case of the presence of blood the fluid turns green or blue. The patients are not allowed to eat any meat during the three or four days preceding the test. Positive findings then indicate without fail that the source of the blood is in the stomach or intestines. In cases giving negative findings, con-

trol examination with other tests never resulted positively. Schlesinger and Holst sum up their experiences, therefore, in the statement that the testimony is all in favor of the accuracy and reliability of the benzidin technic.

93. **Operative Treatment of Epilepsy.**—Auerbach reviews the opinions and experiences of the most prominent German surgeons on this subject, and reports a case of Jacksonian epilepsy showing remarkable improvement to date after excision of a part of the cortex, 5x15x30 mm., corresponding to the motor disturbances as determined by electric tests. In childhood and youth the results of operative intervention are liable to be better than after 40, as also when the disturbances are more strictly limited to one side, and when there is a history of trauma affecting the head or of an encephalitic process. The disturbances in the case described developed during the incubation stage of scarlet fever, without trauma. He thinks that accumulating evidence is limiting more and more the assumption of an idiopathic epilepsy as some unsuspected underlying lesion is becoming such a frequent discovery.

95. **Silver Acetate in Prophylaxis of Ophthalmia Neonatorum.**—Seefelder states that he treated one eye with 2 per cent. silver nitrate and the other eye with 1 per cent. silver acetate in 50 infants in his practice and found that the results were fully as good with the acetate as with the nitrate. The acetate has the advantage, he says, that it is harmless under all circumstances, which can not be said of the silver nitrate.

98. **String Electrometer.**—Cremer has had a string electrometer made, similar to the string galvanometer, and states that it is superior to all other instruments yet devised for electrophysiology. He describes its workings in detail.

99. **Urobilinuria in Typhoid.**—Rubin gives the tracings of the curve of urobilinuria in eight cases of typhoid fever. They show that very high urobilinuria, in the onset of a febrile affection suggesting typhoid, speaks against its typhoid nature. Pronounced negative findings also have the same significance when the fever is subsiding by lysis. Pronounced urobilinuria accompanying lysis is a good omen, but when the urobilinuria persists into convalescence it should be regarded as an indication for great caution in the diet and in allowing the patient to get up. He should not be dismissed until the urobilin in the urine has returned to normal proportions.

100. **Cysticercus in Fourth Ventricle.**—Versé describes two cases in which sudden death occurred and autopsy revealed dead cysticerci free in the fourth ventricle. In both cases the foramen of Magendie had been long occluded. The sudden death must have been due to the internal hydrocephalus which had likewise long existed. One of his patients, a woman, died as she sat up in bed.

104. **Protection of the Perineum.**—Toff remarks that the number of cases of laceration reported from various clinics shows that the technic for preventing injury of the perineum is still far from perfect. He believes that better results could be attained if more regard were paid to the most favorable diameter of the head in guiding delivery. Most of the tears occur while the brow is passing, the suboccipito-frontal diameter being one of the largest, while the occipito-frontal and the mento-occipital are still larger and more dangerous. He stands or sits on the right of the patient, and as soon as the head appears in the vulva he strives to deliver more and more of the back of the head past the symphysis, while forcing the head of the child forward on its breast. After the occiput has passed the symphysis, then the face can be readily delivered, especially if the patient is turned on her left side. Pressing the back of the neck against the symphysis also aids in gaining space to spare the perineum. By this means the shortest diameter of the head, passing from the subocciput to the bregma, is the one involved when the head is emerging. In face presentation the same principle is followed, working out the chin as far in advance as possible, bending the head backward, and delivering the back of the head as the face was delivered above. The technic is illustrated with 6 diagrams.

105. **Instrument for Obtaining Blood for Diagnostic Purposes.**—Schottelius gives an illustration of a convenient little instrument for obtaining a drop of blood. Two metal rings fit on the tips of the thumb and forefinger. Each ring is shaped like a broad signet ring, but one has a slit in which works a small triangular knife on a spring. Holding the lobe of the ear between the thumb and forefinger, armed with these rings, pressure on the knife makes the desired little incision, exactly the right size and depth, when the ear can be at once released. The physician can put on the rings and make the incision without attracting the patient's attention to the instrument. It has been in use in his clinic for several years with constant satisfaction.

106. **Intratumoral Roentgen Treatment of Cancer.**—Strebel has done a large amount of pioneer work in radiotherapy. He advocated three years ago the introduction of radium inside the tumor as a routine procedure in radium treatment of cancer. He has since devised a small Roentgen tube to use in the depths of the tumor. The tumor is incised under adrenalin-Schleich infiltration, the tube is introduced and a weak current turned on. The adrenalin and the pressure of the tube keep the blood expelled from the parts, while most of the radiant energy is utilized, absorption by the skin being abolished. The epidermis is generally assumed to absorb 1/10 of the radiant energy, while the derma proper absorbs more than ½. He claims that in ordinary superficial exposures the rays penetrate only a short distance into the tissues, the deeper parts of the tumor escaping most of their influence, and that all this is done away with by this intratumoral exposure which brings the action of the rays exactly where they are most needed. He also says that it obviates danger of the dreaded Roentgen dermatitis, as the rays do not reach the skin first, and that the exposures can be continued as long as desired without fear of cutaneous lesions. One form of the tube has the outer side protected so that the tube can be shoved in under the skin and send its rays downward only, sparing the protected skin above. This has been found useful in treating metastases and tumefied glands near the surface. With these intratumoral exposures "cancer nests" can be thoroughly destroyed without injury to the skin. His experience has convinced him that the formation of antibodies or other immunization processes can be utilized as adjuvants to direct Roentgen treatment of the tumor proper. This he accomplishes by not restricting the exposures to the tumor alone, but by a general application of the rays to larger portions of the body, in order to accelerate the hemolytic processes and thus induce a kind of autoserotherapy in the cancer patient. He adds that recent research showing the marked hemolytic properties of potassium chlorate and the way in which cancer is influenced by it (Lomer) justifies its tentative administration internally and externally as an adjuvant to radiotherapy. He also refers to the works of Werner, Exner, Heineke and others which have demonstrated that local and general Roentgen exposures induce hyperleucocytosis and lymphopeny; that substances appear in the tissues after exposure for which the polynuclear leucocytes display a positive chemotactic affinity, and that exposure of the leucocyte-producing organs checks new formation of leucocytes. He thinks that these facts can be utilized in radiotherapy of cancer, promoting the destruction of the malignant tumor by accelerating the hemolytic processes in general.

Norsk Magazin f. Lægevidenskaben, Christiania.

Last indexed, page 1468.

108 (LXVIII, No. 2, pp. 105-216.) *Mouse Tumors and Experimental Transmission of Cancers. (Musekræft og experimentel Kræftforskning.) M. Haaland.

109 *Pathogenesis and Treatment of Ulcer of the Stomach. (Ulcus Ventriculi.) J. Thesen.

110 *Carcinoma of the Prostate with Metastases in Spine and Peritoneum. (Carc. Prostatae.) A. Nilssen.

108. **Mouse Cancers.**—Haaland describes his experience with experimental transmission of tumors with research on heredity, immunity, etc. He remarks in conclusion that experimental transmission of malignant tumors is still in its infancy and has not yet produced any results that can be applied in practice. It has afforded, however, a glimpse into the various factors which influence the origin and development of malignant tumors and suggested the principles for successful war on malignant disease. In particular it emphasizes the importance of the general constitution in the development of malignant disease. The cancer theories to date have assumed that the

tumor is due to embryonal or aberrant cells or to an impulse from some unknown parasite, but experimental research has demonstrated that these are not enough—there must be some constitutional predisposition or the cancer cell is unable to proliferate and to produce a tumor. The transplantable mouse tumors enable us to submit this constitutional tendency to experimental tests. The experiments described are susceptible of various explanations, but Haaland thinks that the most plausible is Ehrnch's assumption that the tumor growth is a "fight between cell avidities."

109. Treatment of Ulcer of the Stomach.—Thesen explains gastric ulcer as a chronic, infected ulceration, secondary to some septic process in mouth, nose or throat, accompanied by a local lymphangitis with hyperalgesia of the corresponding parietal peritoneum. The latter is the cause of the pains. He cites statistics to show that the ulcers are always located on parts of the stomach corresponding to certain lymphatic tracts, especially the retroperitoneal. The symptoms are explained by this conception of the origin of gastric ulcer, and its correctness is confirmed, he thinks, by his fine results in 35 cases of gastric ulcer in which treatment was based on these premises. He enforces strict bed rest for three weeks, or for six weeks in the older cases, and applies a wet pack around the entire trunk, as he ascribes the pains to the retroperitoneal glands rather than to the stomach itself. He agrees with Lenhartz in regard to the necessity for not starving the already famished patients any more, and he also agrees with those who insist that rest is what the ulcerated stomach needs. He reconciles these apparently contradictory indications by assuming that the food can not directly induce pain in the stomach, and that direct irritation of the ulcer has only a very mildly deleterious influence on the ulcer. On the other hand, the slightest movement of the stomach is painful, and any movement of the kind is extremely prejudicial for the healing of the ulcer. He therefore gives his patients all the food they can take without its causing painful movements of the stomach. The quantity is more important in this respect than the quality. The meals must be small and frequent, or, as he expresses it, the ulcer patients do not have any meals but keep lunching all day long—never taking more than from 15 to 100 c.c. at a time. One of his patients could eat a raw plum without hearing from it, but had pain after even a small cup of milk. In case of thirst or too small amounts of urine, he supplies water by rectal injection. The foods that excite the stomach peristalsis least are the white of egg, raw scraped meat and fish, butter and cream, and he restricts the diet to these. He obtains good results from bismuth, but he explains them differently from others, ascribing the benefit to the disinfecting action of the bismuth on the surface of the ulcer and also to the probable fact that the bismuth albuminoses formed are taken up by the lymph and are carried into the lymphatics where they exert a direct curative action on the lymphangitis. He does not give the bismuth according to the usual technic, but administers it in suspension in the smallest possible amount of water, in the morning, on the fasting stomach, without previous lavage. He gives the bismuth for five days, then empties the bowels with a copious enema, and recommences the bismuth on the seventh day, until he has thus given fifteen powders. He then suspends the bismuth, as a rule, but has sometimes given up to 45 powders without appreciable harm. All pain generally vanishes by the second powder, and he ascribes to the credit of the bismuth the fact that his patients are so soon able to eat without pain. He has never found blood in the stools after they show traces of bismuth except after severe hematemesis. He has experimented with silver nitrate, but never noted such benefit as after the bismuth, probably because the dosage must be so small. In the first 5 days, with 10 gm. of bismuth, the patient is allowed from 250 to 550 c.c. milk, with from 0 to 4 raw eggs. The sixth day no bismuth, but a copious enema. In the next 5 days the food allowed is gradually increased to 750 c.c. milk, 50 c.c. cream, 5 eggs, a little fish and 3 biscuits with butter and raw scraped meat. He gives the bismuth in 100 c.c. of water and allows the patient half this amount of water afterward. The patient then reclines with the pelvis raised for 20 minutes, and no food is allowed till after he has rested quietly for 45 minutes. The milk is given in sips at first, and, even later, more than 50 c.c. is never allowed at a time. He sometimes substitutes kefir or uses lime water with the milk. After the eighteenth day the patient is allowed to get up. The eggs are given raw at first, but later can be lightly cooked. He does not approve of bread until two or three months after the commencement of the course of treatment.

110. Metastases from Cancer of the Prostate.—In the case reported the carcinoma in the prostate had induced metastases in the seminal vesicles, bladder, peritoneum and spine. In the spine the process was an actual osteoplastic carcinosis and the principal symptoms were those of compression of the cauda equina.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

MEDICAL JURISPRUDENCE, FORENSIC MEDICINE AND TOXICOLOGY. By R. A. Witthaus, A.M., M.D., Professor of Chemistry, Physics and Toxicology in Cornell University, and Tracy C. Becker, A.B., LL.B., Counselor at Law, Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo. With the Collaboration of Others. Second Edition. Volume II. Cloth. Pp. 1008. Price, $6.00. New York: William Wood & Co., 1907.

PRACTICAL PHYSIOLOGICAL CHEMISTRY, A Book Designed for Use in Courses in Practical Physiological Chemistry in Schools of Medicine and Science. By Philip B. Hawk, M.S., Ph.D., Demonstrator of Physiological Chemistry in the Department of Medicine of the University of Pennsylvania. With Color Plates and Other Illustrations. Cloth. Pp. 416. Price, $4.00. Philadelphia: P. Blakiston's Son & Co., 1907.

DIAGNOSIS OF ORGANIC NERVOUS DISEASES. By Christian A. Herter, M.D., Professor of Pharmacology and Therapeutics at Columbia University. Revised and Enlarged by L. Pierce Clark, M.D., Visiting Neurologist to the Randall's Island Hospitals and Schools. With 109 Illustrations. Cloth. Pp. 690. Price, $3.00. New York and London: G. P. Putnam's Sons, 1907.

DIE BEHANDLUNG der Angeborenen Hüftgelenksverrenkung, and DIE BEHANDLUNG der Tuberkulösen Wirbelsäulenentzündung, von Dr. F. Calot. Uebersetzt von Dr. P. Ewald. Illustrated, mit einem vorwort von Prof. Dr. Oscar Vulpius. Paper. Stuttgart: Verlag von Ferdinand Enke, 1906-7. (See abstract in THE JOURNAL, May 18, page 1728.)

PRACTITIONER'S HANDBOOK OF MATERIA MEDICA AND THERAPEUTICS. Based on Physiological Actions and the Indications in Small Doses, to Which is Added Some Pharmaceutical Data. By Thos. S. Blair, M.D., Member Visiting Staff of Harrisburg City Hospital, etc. Cloth. Pp. 253. Price, $2.00 net. Philadelphia: The Medical Council.

TICS AND THEIR TREATMENT. By Henry Meige and E. Feindel, with a Preface by Prof. Brissaud. Translated and Edited with a Critical Appendix by S. A. K. Wilson, M.A., M.B., B.Sc., Resident Medical Officer, National Hospital for the Paralyzed and Epileptic, London. Cloth. Pp. 386. Price, $2.50. New York: William Wood & Co., 1907.

SURGICAL DIAGNOSIS, by Daniel N. Eisendrath, A.B., M.D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois, College of Physicians and Surgeons. Illustrated, partly in colors. Cloth. Pp. 776. Price, $6.50 net. Philadelphia and London: W. B. Saunders Co., 1907.

SIXTH ANNUAL REPORT OF THE BOARD OF TRUSTEES of the New York State Hospital for the Treatment of Incipient Pulmonary Tuberculosis, Ray Brook, N. Y., For the Year Ending Dec. 31, 1906. Transmitted to the Legislature Jan. 28, 1907. Paper. Pp. 39. Albany: J. B. Lyon Company.

CLINICAL LECTURES ON NEURASTHENIA, by Thomas D. Savill, M.D., London. Physician to the West End Hospital for Diseases of the Nervous System. Third Edition, Revised and Enlarged. Cloth. Pp. 216. Price, $1.50 net. New York: William Wood & Co., 1907.

GALLSTONES AND DISEASES OF THE BILE-DUCTS. By J. Bland-Sutton, F.R.C.S., Eng., Surgeon and Lecturer on Surgery to the Middlesex Hospital. With 48 Illustrations. Cloth. Pp. 234. Price, $2.00. New York: William Wood & Co., 1907.

LESSONS ON MASSAGE, by Margaret D. Palmer, Formerly Masseuse and Manager of the Massage Department of the London Hospital. Third Edition. Cloth. Pp. 272. Price, $2.50 net. New York: William Wood & Co., 1907.

SURGERY OF THE RECTUM. By Fred C. Wallis, B.A., M.D., B.C. Cantab., F.R.C.S., Surgeon to the Charing Cross Hospital. Cloth. Pp. 168. Price, $2.00 net. New York: William Wood & Co., 1907.

EXPERIMENTS ON ANIMALS. By Stephen Paget. With an Introduction by Lord Lister. Third Edition, Revised. Cloth. Pp. 387. Price, $3.00. New York: William Wood & Co., 1907.

FORTY-FIFTH GENERAL ASSEMBLY OF ILLINOIS. Index to Senate and House Bills. Paper. Edited and Published by the Bureau of Legislative Publicity, Springfield, Ill.

THE MIRACLE WORKER. By Gerald Maxwell. Frontispiece by G. F. Gray. Cloth. Pp. 349. Price, $1.50. Boston: John W. Luce Co., 1907.

WELLCOME'S PHOTOGRAPHIC EXPOSURE RECORD AND DIARY, 1907. Cloth. Pp. 259. New York and London: Burroughs, Wellcome & Co.

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